PERCEPTION BASED CHARACTER MODELING AND ANIMATION

A Thesis

by

MITSUTOSHI HIGA

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

December 1999

Major Subject: Visualization Sciences

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Approved as to style and concerned by:

Louis G. Tassinary
(Chair of Committee)

Ergun Akleman
(Member)

William Graziano
(Member)

Julius M. Gribou
(Head of Department)

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ABSTRACT

Perception Based Character Modeling

and Animation. (December 1999)

Mitsutoshi Higa, B.S., Texas A&M University

Chair of Advisory Committee: Dr. Louis G. Tassinary

This thesis explores how humans identify sex (male or female) and judge gender (masculine or feminine) and attractiveness of a computer animated walker. Hip and shoulder movements during the walk cycle and waist-to-hip ratio (WHR) of the walking figure were systematically manipulated to construct the stimulus set. The analysis of the experiment data suggested that perceived sex is identified primarily by WHR. Perceived gender and attractiveness are judged by both WHR and walk motion independently and interactively. These results were used to develop guidelines to reproduce and control perceived sex and gender for computer animated models.

This thesis is dedicated to my mother, Satoko Higa. My deepest appreciation goes to your unconditional love and support and for giving me the opportunity to allow this curious heart to explore the new world.

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I would like to thanks the members of my advisory committee, most notably Louis Tassinary for introducing to me the analytical way of problem solving, and providing me constructive and intellectual advice toward this study.

I am indebted to Kerri Lawson for running the experiment, which included 366 participants, and Staci Ross and Sara Arledge for their diligent work on rating data sheets. I would like to acknowledge my appreciation to Verrick Walker and Greg Weiner for editing and proofreading my dreadful English writing.

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To Don House and Karen Hillier I would like to say thank you for getting me started in the master's program in Visualization Laboratory and for continuously keeping supporting me throughout the program.

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INTRODUCTION

The applications of digitally created articulated character animations have increased rapidly in the areas of entertainment, advertising, simulation and education. In feature films, the latest digital character animations now appear routinely and move both naturally and realistically. However, the generation of such articulate animations is a complex and time consuming process; therefore, more sophisticated intuitive and interactive tools are currently needed.

The walk cycle is one of the fundamental aspects of character animation. Animators have known for some time that adding particular kinds of secondary and tertiary motions to a generic walk cycle can make the characters seem alive and expressive. For example, when we watch pedestrians on a college campus or on downtown streets, we are usually able to recognize their sex simply by watching them walk. Moreover, we often immediately and effortlessly assess the attractiveness and the gender of observed individuals on the basis of their walk. For instance, we sometimes encounter a person whose walk is in the manner of the opposite sex and, despite the fact that we might perceive this individual to be either masculine or feminine, there may be little doubt as to their actual sex. Unfortunately, it is not at all clear upon what evidence we base these judgements. In other words, what cues allow us to simultaneously perceive the sex, gender and attractiveness of a walking character?

If we can uncover the information that supports such judgements, it should be

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This thesis follows the style and format of *Psychological Science*.

possible to use these rules to govern the creation of walking characters that directly manipulate the cues to sex, gender and attractiveness.

Early studies of the perception of human gait demonstrated that the sex of an actor or actress could be determined solely by observing an individual walking (Cutting & Kozlowski, 1977). In these studies, individuals wore either small reflecting material or light on their joints and, with the appropriate lighting, the motions of the actors and actresses appear as the movement of an array of dots while all other parts of the actor are invisible (Johansson, 1973).

Recent studies have demonstrated that the waist-to-hip ratio (WHR) can be a potent determinant of perceived attractiveness, reproductive potential and health (Furnham, Dias & McClelland, 1998; Singh, 1993; Singh, 1994; Singh, 1995). For healthy and attractive women this ratio lies typically between 0.67 and 0.8 while the ratio of healthy and attractive men lies typically in the range of 0.8 to 0.87 (Singh, 1993).

Unfortunately, the studies of dynamic features related to the recognition of sex have failed to distinguish between gender (i.e., masculine or feminine) and sex (i.e., male or female), and the studies of static features related to perceived attractiveness has failed to distinguish between sex and attractiveness. Thus, if both human gait and form are systematically varied in the creation of simple animations their effect on the perception of sex, gender and attractiveness can be examined directly.

BACKGROUND

Study of perceived attractiveness using waist-to-hip ratio

It seems humans assume that attractiveness is a reliable sign of mate quality, and therefore they want an attractive (and thus fertile) mates with whom they may produce good, viable offspring (Furnham, Dias & McClelland, 1998). Singh (1993, 1994, 1995) demonstrated that morphological features such as overall body fat distribution measured by waist-to-hip ratio (WHR) influence male judgements of female attractiveness and desirability for relationships.

WHR is an unambiguous phenotype, which reliably differentiates reproductive age men and women. It is linked with the age specific sex hormone profile and is also an indicator of susceptibility to various major diseases, e.g. diabetes, hypertension, heart attack, gallbladder disease, ovarian and breast cancer and stroke. Thus, WHR simultaneously conveys information about both health status and reproductive capability (Singh, 1994).

Before puberty, WHRs of both sexes are similar. However, after puberty, testosterone stimulates fat deposits in the abdominal region and inhibit fat deposits in the gluteofemoral (buttocks and thighs) region. Estrogen, in contrast, inhibits fat deposits in the abdominal region and maximally stimulates fat deposits in the gluteofemoral region (Björntorp, 1991). Therefore, WHR becomes significantly lower in females than in males.

The typical range of WHR for healthy premenapousal females has been shown to be 0.67-0.80. Singh (1995) also reported that the WHR of both Miss America contest winners and playboy centerfolds remained within the 0.68 to 0.72 range. On the other hand, the WHRs of male are between 0.8 and 0.87.

Singh (1993) evaluated female attractiveness by using 12 line drawings of female figures. WHR of these different female body types were underweight, normal weight and overweight. Within three groups, four WHRs raging from 0.7 to 1.0, were rated for levels of attractiveness. The results of the experiment indicated that normal weight female figures with low WHR were judged to be attractive and healthy. Female figures with high WHR, independent of overall body weight, were judged to be unattractive and unhealthy.

Similarly, Singh (1995) tested men's WHR for attractiveness using twelve line drawings of male figures varying WHR from 0.7 to 1.0 within three body weight categories (i.e., underweight, normal weight and overweight). Results showed that a WHR of 0.9 and normal body weight were ranked as most attractive followed by 1.0, 0.8 and 0.7 (all normal weight). In general, normal weight figures were perceived as more attractive than overweight figures and underweight figures were ranked as least attractive. Singh found that only normal weight figures with typical male-like WHRs were perceived as healthy and attractive. Furthermore, perceived healthiness appeared to be a necessary condition for attractiveness.

Perception of human motion

In the early 1970s Johansson (1973) developed the point-light displays, in which an array of light sources were attached to the joints of a person. When this individual walks, runs, or dances the viewer sees only an array of moving lights that give the impression of human motion. Since such displays are independent of form or outline of individual, this technique is an effective way to study the perception of human motion.

By using this technique, Cutting and Kozlowski (1977) demonstrated that viewers could recognize themselves and their friends by their walking in an abstract display of their movements. They (Kozlowski & Cutting, 1977) also reported that the biological sex of the walker was identifiable even with the lights placed only on the ankles. In addition, lights on upper-body joints permit more accurate guesses than do lights on lower-body joints. Interestingly, Kozlowski and Cutting demonstrated that viewers could recognize the human walking gait immediately from dynamic displays of point-light; however, still displays of point-light were not recognized as human.

Extending the study, Barclay, Cutting & Kozlowski (1978) reported that the recognition of biological sex of dynamic point-light display was influenced primarily by the shoulder and hip motions of a walker. Furthermore, in order for viewers to recognize the dynamic point-light display, the duration of the walking gait needed to be between 1.6 sec and 2.7 sec, roughly equivalent to two step cycles.

Based on her extensive measurements of male and female walkers Murry, Kory & Sepic (1970) also reported that characteristically masculine walk shows greater lateral shifting of the head and thorax, and less lateral shifting of the pelvis. Conversely,

feminine walking characteristics show less lateral shifting of the head and thorax, but greater lateral shifting of the pelvis.

Cutting, Proffitt & Kozlowski (1978) surmised that the identification of sex depends on structural differences between male and female bodies, especially the relation of shoulder to hip. In general, shoulders of males are broader than those of females, and hips of females are broader than those of males. As a consequence, males have a higher shoulder-to-hip ratio in which the width of the shoulders is divided by that of hips. Specifically, the average shoulder-to-hip ratio of males is 1.10, while that of females is 0.96. Cutting also constructed computerized versions of human walkers, represented as point-light displays, to demonstrate the importance of shoulder and hip rotation when making judgements about the sex of a walker (Cutting, 1978).

3D-animation of human motion

The animation of human figures has long been regarded as an important but difficult problem in computer animation (Hodgins, O'Brien & Tumblin, 1997). Since human eyes are extremely skilled and adept to observe subtle variations in motion, one small flaw in such a synthetic motion will instantaneously capture the observers' attention. In fact, a viewer can be certain that there is something wrong with the motion even though he or she may not be able to explain why. A variety of techniques for creating animations of human motion have been introduced in last two decades. These approaches include techniques for manipulating keyframe or motion capture data, control systems for dynamic simulations, and other procedural or hybrid approaches.

Each method has its own strength and weakness, making the visual comparison of results essential, especially for the evaluation of such subjective qualities as naturalness and emotional expression. However, the research community has not yet adopted a standard set of models (Hodgins, O'Brien & Tumblin, 1997).

Traditional keyframing gives the animator direct control over generating the desired motion by defining and modifying the motion of objects through translation and rotation of trajectory curves (Bruderlin & Williams, 1995). However generating the articulated motion via keyframes is labor intensive and requires highly developed human skills. The Adventures of Andre and Wally B. and Luxo Jr. were both animated using this approach (Lasseter, 1987).

The major advantage of motion-capture is instant generation of realistic human motions. However, the captured data usually requires extensive refining since the data contains noise. Moreover, motion-capture does not provide us with the underlining mechanism of the motion. Witkin and Popovic (1995) used warping and blending techniques to edit motion captured human walking data. A wide range of new realistic motions were created by warping and joining captured motion clips, using only a few motion-warping keyframes to modify the prototype motions, and using simple blending to join overlapping motion clips. Unuma, Anjyo & Takeuchi (1995) applied Fourier transformations to data of actual human movement to interpolate human locomotions. Based on frequency analysis of the joint angles, a basic 'walking' factor and 'emotional' factor like "brisk" is extracted. These factors are then interpolated by Fourier expansion to generate a continuous transition from normal to brisk walking. Bruderlin and Williams

(1995) built a library of motion-captured data such as joint angles, joint coordinates, and higher level motion parameters of articulated figures with many degrees of freedom. He then applied signal processing techniques to edit, modify and blend motion parameters of the articulated figures.

Physically-based modeling generates realistic motion by utilizing physical laws of nature expressed as equations and formulas. However this approach can be computationally expensive if the mathematical model becomes highly complex. Moreover, it can not guarantee the motion the animator intended since it is based on a mathematical simulation. Hodgins, Wooten & Brogan (1995) generated physically-based human athletes to create natural-looking human motion such as running, bicycling and vaulting. These athletes are built with rigid-body models in which their mass and inertia properties are derived from biomechanical data. In addition, secondary motions such as spring-mass simulation of clothing driven by the rigid-body motion of simulated motion are added. Laszlo, Panne & Fiume (1996) used limit cycle control techniques to stabilize open-loop periodic motions such as a human walking gait using a dynamic human model with 19 degrees of freedom.

Bruderlin and Calvert (1989) used a hybrid approach combining a simplified dynamic model and a goal-oriented control algorithm to generate the motion of walking human. The locomotion is controlled at the top level as a task , which is then decomposed by application of the concepts of step symmetry and state-phase-timings. As a result of this decomposition, the forces and torques that drive the dynamic model of the legs are determined by numerical approximation techniques.

Significance of the study

Singh's study suggested that the WHR is the primary cue for perceived attractiveness. Female figure with a WHR of 0.7 was found to be most attractive, while male figure with a WHR of 0.9 was found to be most attractive. Tassinary and Hansen (1998), however, argued that the WHR does not necessary work solely as a cue for the judgements of attractiveness. Their study used new 2D linear drawing female figures that WHR varied from 0.5 to 1.0. Their findings opened new possibilities for examining the effect of the WHR. In a sense of studies, Cutting and colleagues demonstrated that the sex of a specific individual could be identified by viewing walkers based only on the movement of point lights attached to their joints. However, they failed to distinguish between perceived gender (i.e., masculine or feminine) and perceived sex (i.e., either male or female), and therefore, it remains unclear as to which dimension was actually being perceived. The prior literature thus clearly suggests that both dynamic and static attributes are important for person perception but the data to date are ambiguous with respect to extremely what these attributes signify. Therefore, by systematically manipulating both static and dynamic cues it is possible to more rigorous ask both dynamic cues such as walk gait and static cue such as body shape simultaneously affect the recognition of sex and the judgement of gender and attractiveness.

PROBLEM STATEMENT

My goal for this study is to understand the basis for perceiving sex, gender and attractiveness from the observation of walking human figures and to design a method for reproducing and controlling such animations. Computer generated 3D walking figures will be used as stimuli in this experiment.

Two visual attributes, the motion and body shape of the figures, will be the focus of this study. With respect to the former, the movements in the shoulders and hips of figures will be used as variables. In general, the shoulders of human males are wider than their hips, while the shoulders of females are approximately the same width as their hips; therefore, due simply to group differences in body geometry, the secondary motion during walking should be both greater at the shoulders and less at the hips for males than for females (Cutting, 1978). More specifically, when a male walks the twist in his shoulders is normally greater than the twist in his hips. Conversely, when a female walks the twist in her hips is greater than twist in her shoulders. With respect to the latter, the relative size of the waist and hips will be used as variables. More specifically, a small set of different WHRs will be generated in which both the waist and hip circumference will vary reciprocally.

My problem statement is comprised of three questions. First, do walk motions and WHRs influence the perception of sex, gender and attractiveness? Second, if walk motions and WHRs actually affect judgements, are their influences independent or

interdependent? Finally, if they are independent, which attributes primary effect either the recognition of sex or the perception of gender or attractiveness?

"Gender-based" human walk animation guidelines will be developed based on the statistical analysis of results from the experiment. As a future application, this method could be integrated into keyframeless walk designing software so that animators might interactively manipulate single parameters to generate a desired degree of sex, gender or attractiveness. This method might benefit animators by providing an intuitive tool with which to directly control the expressive characteristics of a walking synthespian.

METHODS

Overview

Twenty-five computer generated walk animations formed the stimulus set. These animations were generated by crossing one of five different walk with one of five different WHRs. Research participants then viewed the resulting 25 animations in random order and assessed the sex, gender and attractiveness of each figure.

Walk cycle basics

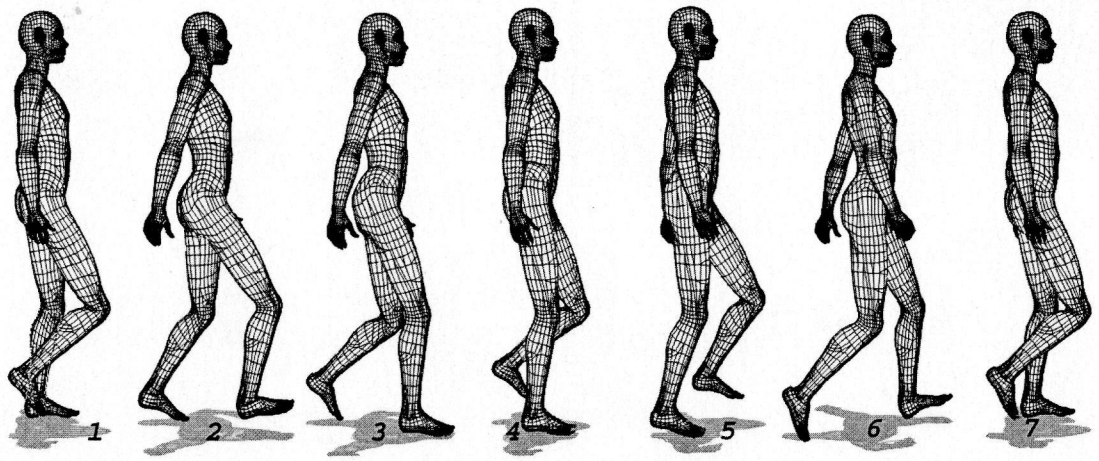

Fig. 1. A complete cycle of typical human walk

The complete cycle of a typical human walk is shown in fig. 1. First, the right foot is lifted and thrust forward while the left foot stays on the ground supporting the entire weight of the body (1). As the right foot continues to travel forward (2) and

touches the ground (3), the body weight shifts from the left foot to the right foot. When this happens, the left foot is released from supporting the body weight and moved forward (4). As the left foot travels forward (5) and touches the ground (6) the body weight shifts again from the right foot to the left foot (7).

In order to maintain the balance of the body while walking, the left arm is typically swung from the back to the front of the body as the right foot moves forward. Simultaneously, the right arm is swung from the front to the back of the body. A twisting motion in the shoulders results from the swinging of the arms. When the right foot steps forward and touches the ground, the left shoulder is twisted forward and toward the right (relative to the body). In the same fashion, the right shoulder twists toward the left (relative to the body) as the left footsteps forward.

Five walk motions

Poser 3™ software running on a Macintosh PowerPC™ was used to generate the animations. Poser 3™ is a character animation program that contains libraries of ready-to-use 3D human models. Every body part of these models is capable of being scaled, translated and rotated, and all changes can be keyframed in order to animate the resulting figures.

Walk Designer is the module in Poser 3™ that lets users create generic walk cycle. The default walk cycle is smooth and androgynous and can be applied to figures in Poser 3™ as a keyframed animation. Users are able to modify the characteristics of a walk cycle. For example, sneak, strut and run can be added to the initial walk cycle.

However Walk Designer does not provide control over the shoulder and hip transformation; therefore the default walk cycle in Walk Designer was applied to a figure and the shoulder and hips were animated individually by modifying their keyframes.

Five different animations were created to represent walks that range from extremely masculine to extremely feminine. A masculine walk motion (i.e., a swagger) was created by exaggerating shoulder movement whereas a feminine walk motion (i.e., a sway) was created by exaggerating hip movement. These five walk motions were extreme swagger, mild swagger, neutral, mild sway, and extreme sway (see table 1 for different combination of hip and shoulder movements). All five animations share the same walk motions except for the differences in shoulders and hip movements.

Table 1. Five walk motions

Walk motion	Degree of hip motion	Degree of shoulder motion
Extreme sway	Highest	Low
Mild sway	High	Low
Neutral	Moderate	Moderate
Mild swagger	Low	High
Extreme swagger	Low	Highest

Hip Movement

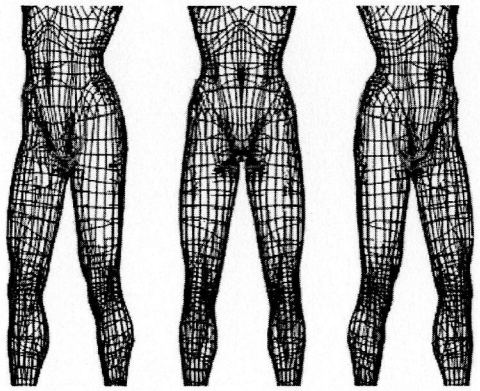

Fig. 2. Hip twist

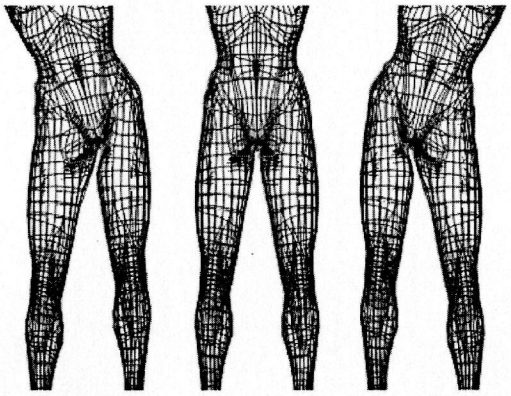

Fig. 3. Hip side-side

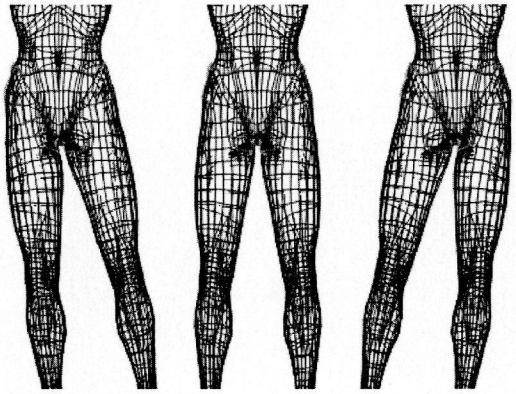

Fig. 4. Hip x-translation

The hip motions consist of the *hip twist*, *hip side-side* and *hip x-translation*. The *hip twist* (see fig. 2) is the rotation about the spine of the figure (hip's y-axis). The *hip side-side* (see fig. 3) is the rotation about the navel. The *hip x-translation* (see fig. 4) is the lateral displacement from the left side to the right side of the body.

Shoulder movement

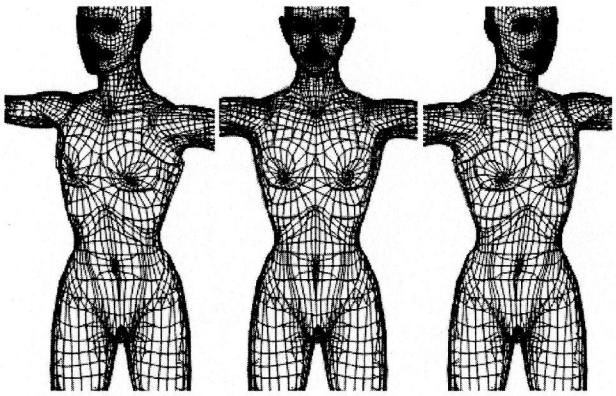

Fig. 5. Shoulder twist

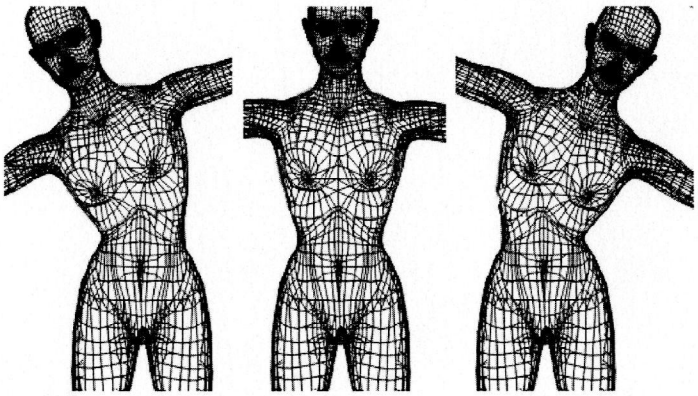

Fig. 6. Shoulder side-side

The shoulder motions consist of the *shoulder twist* and *shoulder side-side*. The *shoulder twist* (see fig. 5) is the rotation of the chest about the spine of the body (y-axis) while the *shoulder side-side* (see fig. 6) is the rotation about the center of the upper abdomen (z-axis). In order to create the shoulder motions the chest was animated instead of the shoulders themselves because the chest was the base of upper body structure. Therefore the term 'shoulder' will be used throughout this thesis instead of 'chest' to describe the shoulder motions.

Background

Cutting (1978) generated a synthetic walker utilizing point-light displays to study the effects of hip and shoulder movement on the recognition of the sex of a walker. Based on Cutting's study, Timothy MacLaughlin (1994) constructed keyframe animations of feminine, masculine and androgynous walk cycles by varying shoulder and hip movement (see table 2). In the present study, these keyframe values of hip and shoulder movement were modified to generate a new stimulus set (see table 3). MacLaughlin's x-axis rotation values were not used because there was no observable difference in shoulder and hip motions across the range of values. In addition, the *hip x-translation* was added and the *hip side-side* motion was amplified to generate the feminine hip motion. Extreme sway had 30% more hip motion than mild sway, although both had the same degree of shoulder motion. Extreme swagger has 30% more shoulder motion than mild swagger, but the hip motion remained unchanged.

Table 2. MacLaughlin's values. The unit of rotational values are in degree.

	Walk types		
Rotations	Female	Androgynous	Male
Hip x-axis	1.69	1.6	0.43
Hip y-axis	6.44	4.12	1.69
Hip z-axis	4	4	4
Shoulder x-axis	0.34	0.85	1.36
Shoulder y-axis	1.69	4.12	6.44
Shoulder z-axis	2	2	2

Table 3. Transformational values of five walk motions. The unit of twist and side-side is in degree.

	Walk types				
Transformations	Extreme sway	Mild sway	Neutral	Mild swagger	Extreme swagger
Hip twist	8.372	6.44	4.12	1.69	1.69
Hip side-side	13	10	1.6	0.43	0.43
Hip x-trans	0.02	0.015	0	0	0
Shoulder twist	1.69	1.69	4.12	6.44	8.372
Shoulder side-side	0.34	0.34	0.85	1.36	1.768

Animating walk motion

Each walk cycle consists of two major body movements that of the hips and shoulder. The hip motions include the *hip twist*, *hip side-side* and *hip x-translation* while the shoulder motions include the *shoulder twist* and *shoulder side-side*. In order to generate the hip and shoulder motions, The Walk Designer's default walk cycle was applied to a figure to establish a general walk cycle. Then, the shoulder and hips were keyframed manually to generate specific motions

Animating hips

Timing of the hip motion is crucial because if the hips do not twist at the right moment the resulting motions would appear out of rhythm and the entire walk cycle will look unnatural. In a typical walk cycle, as the right foot is stepped out to move forward, the body weight is shifted from the left foot to the right foot. As soon as the right foot touches on the ground, the weight shifting is completed, and the left foot is released from supporting the body weight. As the left for is released from the body weight, it is stepped out. As the left foot travels forward, it passes the right foot that is situated the directly beneath of the body supporting the entire body weight. At this moment, all three hip motions such as *hip twist*, *side-side* and *x-translation* reach its maximum amount of transformation need to be keyframed.

The diagrams below explain how the hip motions in mild sway were created. The values used in the following examples were actually applied to rotate and translate the models shown in diagrams.

First, in order to add the *hip x-translation*, the hip was translated 0.015 unit along the hip's x-axis (see fig. 7 diagram 2).

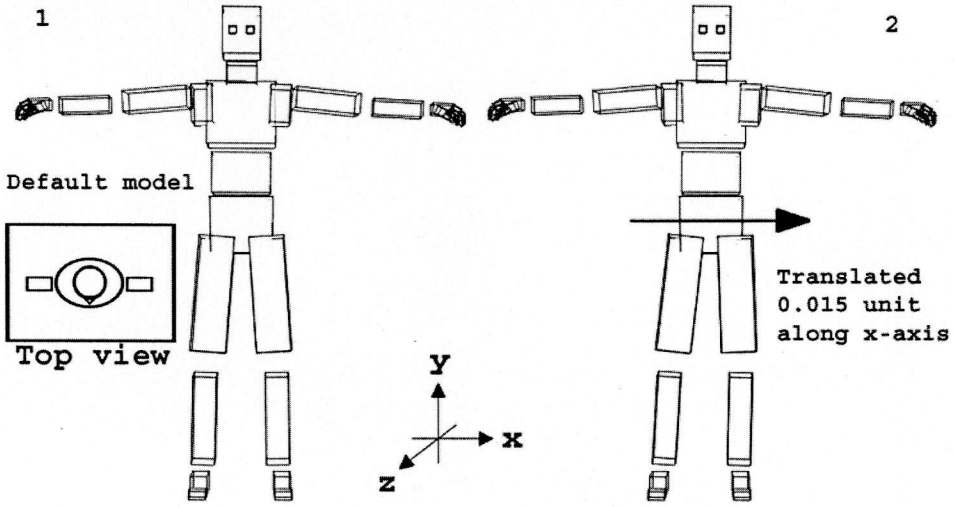

Fig. 7. Animating the hip motion 1. Diagram 1 shows the figure before transformation. Diagram 2 shows the translation of the hips along x-axis.

Then, in order to emphasize the hip displacement, the hips were rotated 10 degrees about the z-axis (hip side-side) (see fig. 8 diagram 3).

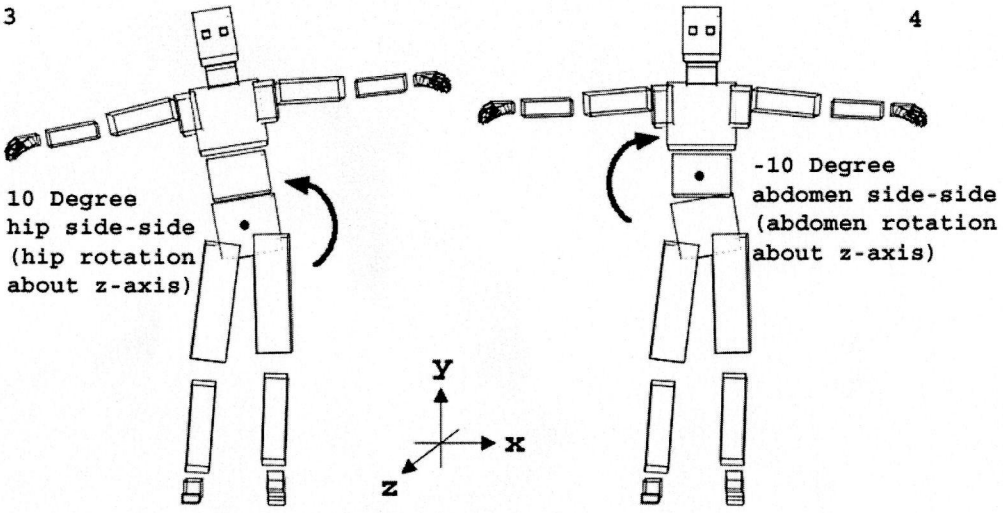

Fig. 8. Animating the hip motion 2. Diagram 3 shows the hip rotation about z-axis. Diagram 4 shows the rotation of the abdomen about z-axis.

Because of this *hip side-side*, the upper body (from hip high) was tilted right (relative to the body). This is because the hips are the fulcrum of the entire body. Since the upper (above the hips) and lower (below the hips) body are constructed around the hips, if the hips are twisted about the hips' z-axis the entire upper body such as the abdomen, chest and head are forced to tilt.

In order to rectify the tilted body posture and keep it straight during the *hip side-side* motion, the counter *side-side* motion of the abdomen is necessary (see fig. 8 diagram 4). The *hip side-side* and the *abdomen side-side* occur at same time, and the rotational amount of the *abdomen side-side* needs to be identical as that of the *hip side-side*; however, the motion needs to be in the opposite direction. For instance, in order to correct this body tilt, the abdomen was rotated –10 degrees about its z-axis (i.e., an amount equal to and in the opposite direction of hip side-side).

Next, *hip twist* was added (see fig. 9 diagram 5) by rotating hip 6.44 degrees about its y-axis, causing the whole upper body to face left (relative to the figure).

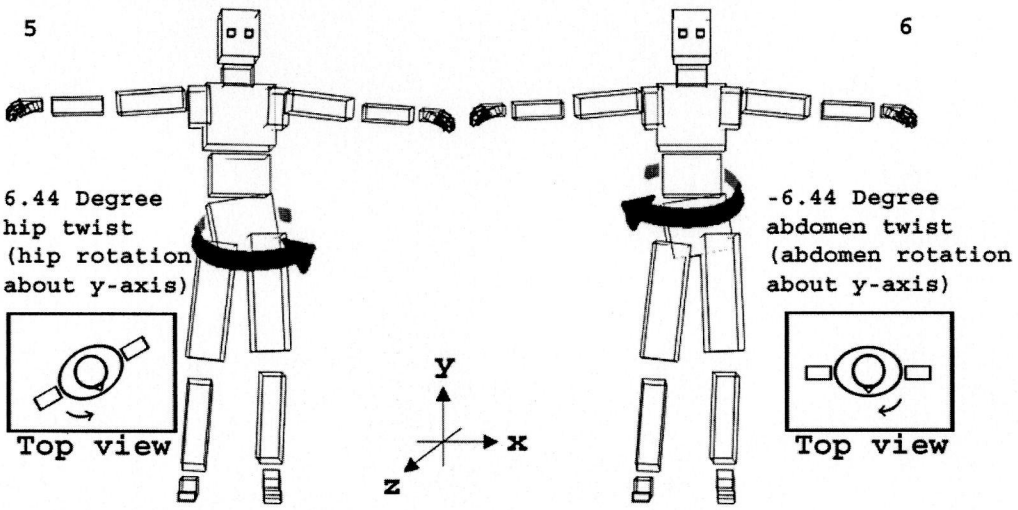

Fig. 9. Animating the hip motion 3. Diagram 5 shows hip rotation about y-axis. Diagram 6 shows the rotation of the abdomen about y-axis.

In order to make upper body face forward, the abdomen was rotated (see fig. 9 diagram 6) –6.44 degrees about its y-axis (i.e., an amount equal to and in the opposite direction of *hip twist*).

Animating shoulder

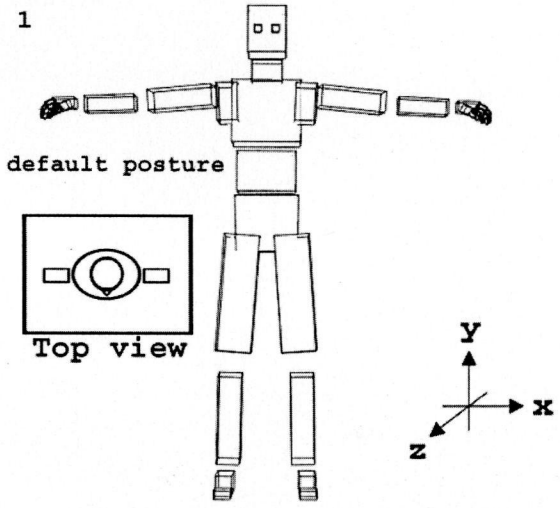

Fig. 10. Animating the shoulder motion 1. Diagram 1 shows the figure before transformation.

In order to show how to generate the shoulder motions, the shoulder motions in mild swagger are used as a following example (see fig. 10). Both the *shoulder twist* and *side-side* reach their maximum rotation when the left foot steps forward and reach the furthest distance just before the left foot starts falling toward the ground. At this moment, the shoulder was rotated 1.69 degrees about its y-axis (*shoulder twist*), and it caused the upper body (from chest high) to face left (relative to the figure).

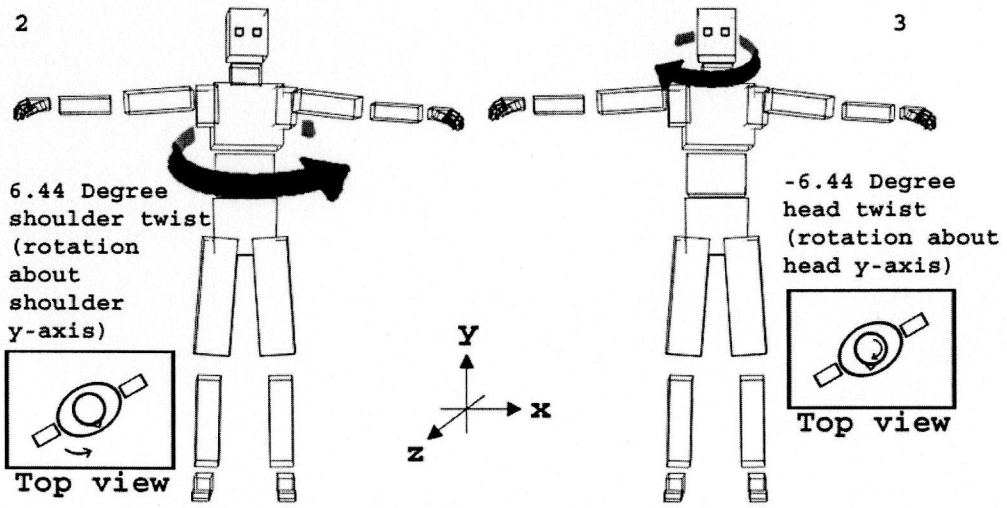

Fig. 11. Animating the shoulder motion 2. Diagram 2 shows the rotation of the shoulder about y-axis. Diagram 3 shows the rotation of the head about y-axis.

In general, a person's head tends to face the direction in which he/she is walking, regardless of how the rest of body is moving. This tendency of the head to stay relatively stationary and stable does not occur automatically in the computer animation; therefore, in order to simulate this tendency, it was necessary to counter rotate the head –1.69 degrees (see fig. 11 diagram 3) about its y-axis relative to the *shoulder twist* (i.e., an amount equal to and in the opposite direction of the *shoulder twist*).

Next, the *shoulder side-side* was added (see fig. 12 diagram 4) by rotating the shoulder 0.34 degree about its z-axis, and it caused the upper body to tilt slightly left (relative to the figure).

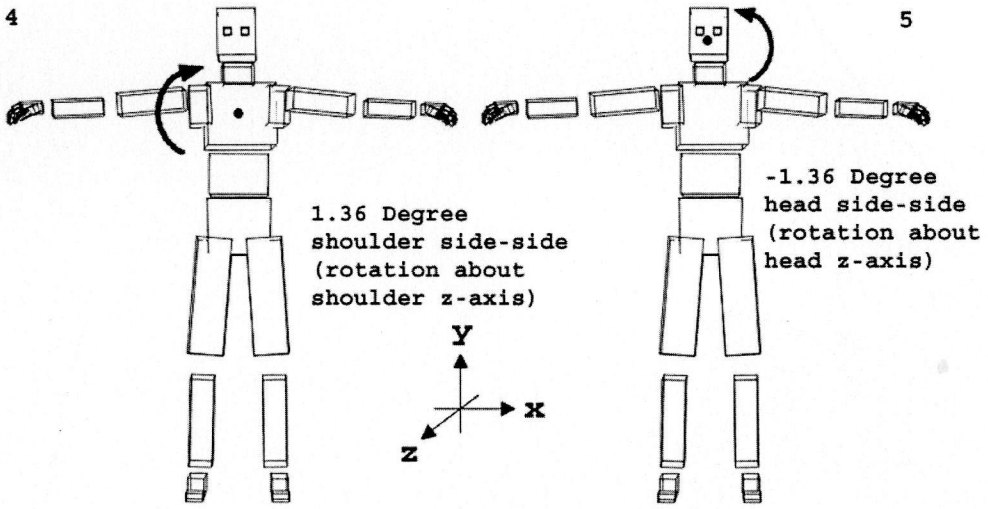

Fig. 12. Animating the shoulder motion 3. Diagram 4 shows the rotation of shoulder about z-axis. Diagram 5 shows the rotation of the head about z-axis.

In order to straighten the upper body posture (see fig. 12 diagram 5), the head was rotated –0.34 degree about its z-axis (i.e., an amount equal to and in the opposite direction of the head side-side).

Waist-to-hip ratio

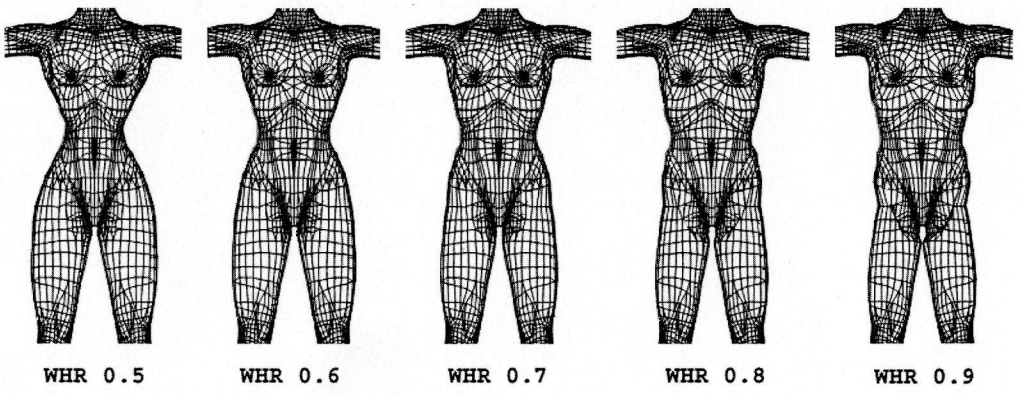

Fig. 13. Figures with waist-to-hip ratios from 0.5 to 0.9

Waist-to-hip ratio (WHR) is the ratio of waist circumference to hip circumference, and five different WHRs, 0.5, 0.6, 0.7, 0.8 and 0.9 (see fig. 13), were generated by re-scaling the shape of hips and abdomen of figures. In this modification the abdomen was treated as waist (see fig. 14).

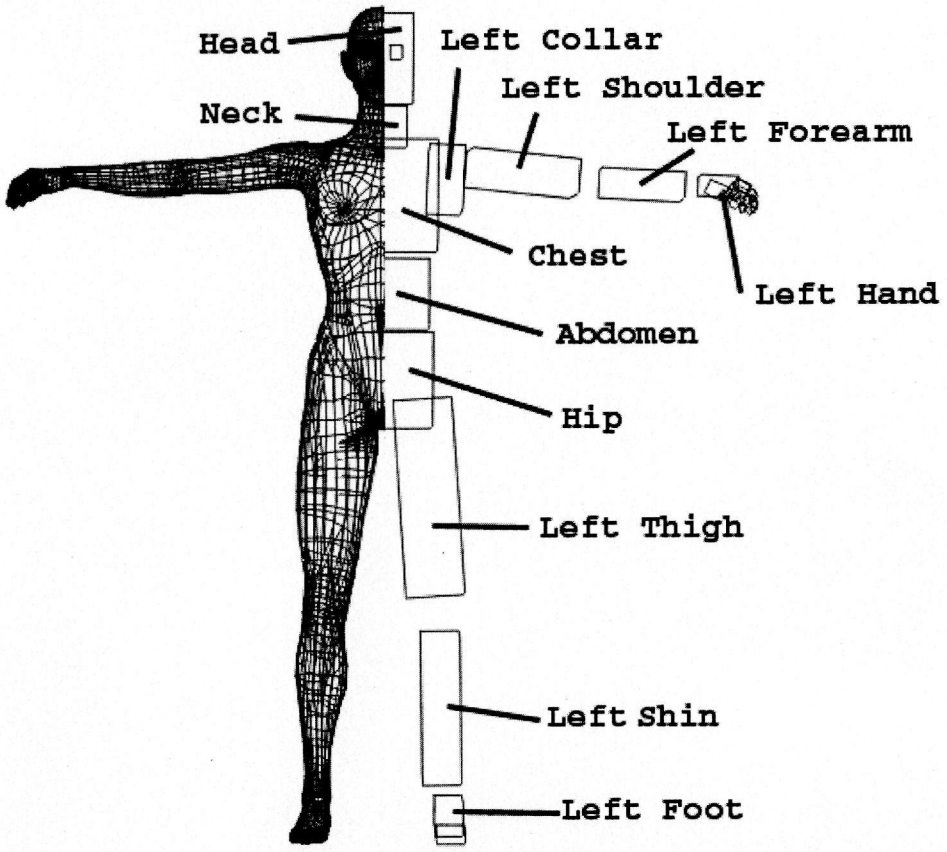

Fig. 14. Body structure of a figure

In Poser 3^{TM}, the hips and abdomen were re-scaled along x and z-axis. For example, to create a figure with a WHR of 0.5, the abdomen was scaled down 75 %

along the x and z- axis, and the hips were scaled up 105 % along the x-axis and 120 % along the z-axis (table 4).

Table 4. Scaling factors to create WHRs from 0.5 to 0.9

	WHR	0.5	0.6	0.7	0.8	0.9
Abdomen	x,z-scale	75%	95%	107%	117%	127%
	taper	0%	0%	0%	0%	5%
Hips	x-scale	105%	105%	93%	83%	73%
	z-scale	120%	105%	93%	83%	73%
Actual WHR		0.5	0.61	0.71	0.81	0.9

In order to measure the actual circumference of waist and hips, all five figures were exported as polygonal models to the 3D animation software Alias™ running on a Silicon Graphics™ workstation, and ellipsoids were used to measure the major and minor axis of the waist and hips (see fig. 15). The circumference of waist and hips were then calculated by using measured the major and minor axis of ellipses.

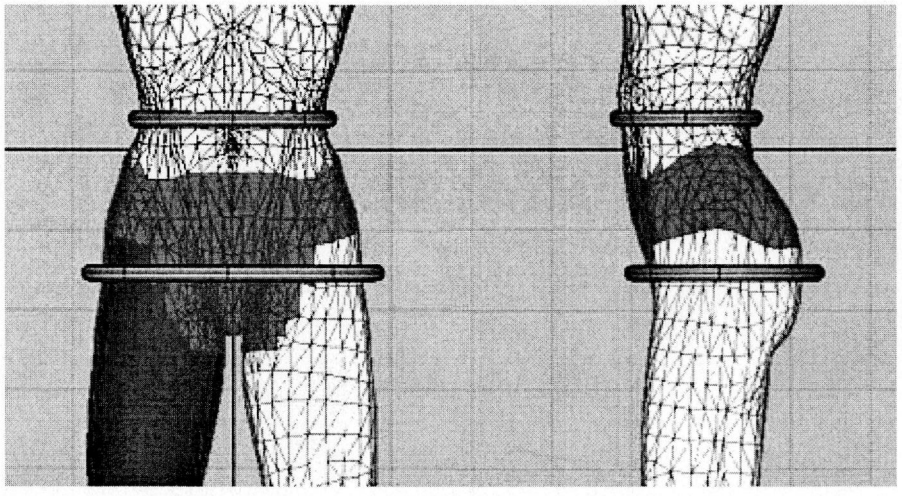

Fig. 15. Measuring the circumference of the waist and hips using ellipses

Preparing androgynous body

An unclothed adult female in Poser 3™ was chosen to prepare an adult androgynous figure. In order to make this figure's appearance androgynous, the hair was not attached, the size of breasts were reduced, and the color of the entire figure was changed from a pink flesh skin to a dark gray color in order to downplay the surface detail of the figure.

Camera setting

A forty-five degree frontal view was used to show the walking figure from head to toe (see fig. 16). The camera position remained stationary during the entire animation.

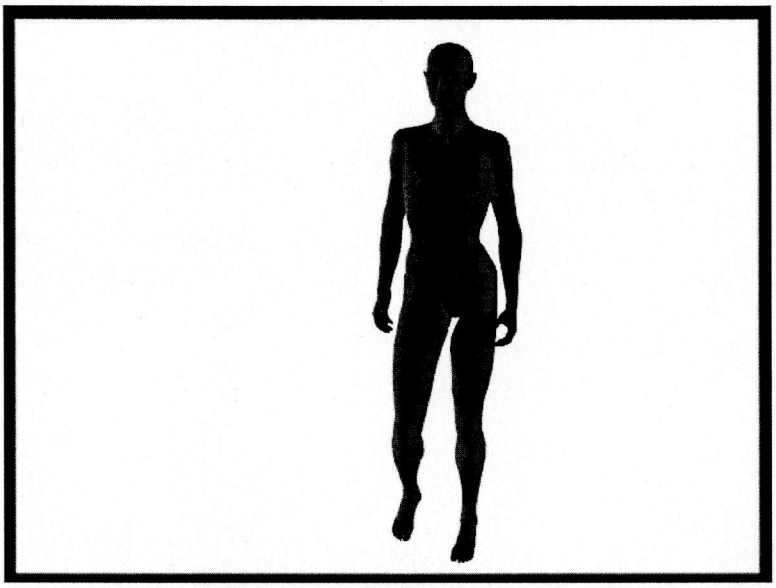

Fig. 16. 45 degree frontal view and androgynous figure

Rendering frames and editing to tapes

Five different walk cycles were crossed with five different WHRs to create 25 unique combinations, all of which were applied to the androgynous figures. A complete walk cycle consisted of 75 frames with playback rate of 30 frames per second. All animation frames were rendered on a Macintosh PowerPC™ with a the resolution of 640 by 480 pixels. Rendered frames were then transferred from the computer to Beta SP video tape, and each walk animation was cycled in a video editing session to generate about 11 seconds of animation per each cycle.

The experiment tape consisted of the preview and task phases. The preview phase contained all 25 randomly ordered animations to give the participant a preview of what they would be asked to watch and rate. The average duration of each animation was about 11 seconds. The title and sequence number for each animation were not displayed. The task phase also included 25 randomly ordered animations; however, the preview and task phases utilized different random orders (see appendix A). In the task phase, a sequence number was displayed at the beginning of each animation as "Sequence 1", and 15 seconds of freeze frame with text "Please Rate" was displayed following each animation to allow the participants time to rate each animation. The title and description for each animation were not shown, neither were the sounds of foot steps nor background music added to the tape.

Research participants

A total of 365 participants participated in this study[1] (see appendix B for forms used for the experiments and see appendix D for raw data). There were 180 females and 185 males. The age range was between 17 and 26, the mean being 18.9.

All participants were undergraduate students at Texas A&M University. Eighty-three percent were white/Caucasian, 7% were Hispanic/Latino, 2% were Black/African American and 2% were Asian, and received credit toward fulfilling the introductory psychology course requirement. Participants were allowed to participate only once.

Experimental procedure

An auditorium with a 150-seat capacity was used for the experiment and the animation was rear projected onto the 75 by 55 inches (6.3 by 4.6 ft) screen located at the front of the room. Room illumination was slightly dimmed to improve the projected image but there was still adequate light to read the questions and write on the rating sheet. The projected animation was clearly visible from any part of the room.

Six sessions of experiments were carried out to accommodate all 365 participants (see table 5). The first three sessions were held on the evening of November 10, 1998. The next three sessions were held on the evening of November 19, 1998.

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[1] The actual total number of participants was 366. However, one participant's data (male, 19 years of age, session 1) was excluded from analysis because the pattern of his ratings was unlike any other participants as well as unlike the average values across all participants.

Table 5. Schedule of experiment

Session	Date	Start	End	Total participants
1	11/10/98	7:30pm	8:20pm	62
2	11/10/98	8:30pm	9:20pm	31
3	11/10/98	9:30pm	10:20pm	45
4	11/19/98	7:30pm	8:20pm	102
5	11/19/98	8:30pm	9:20pm	68
6	11/19/98	9:30pm	10:20pm	58

RESULTS

Perceived sex

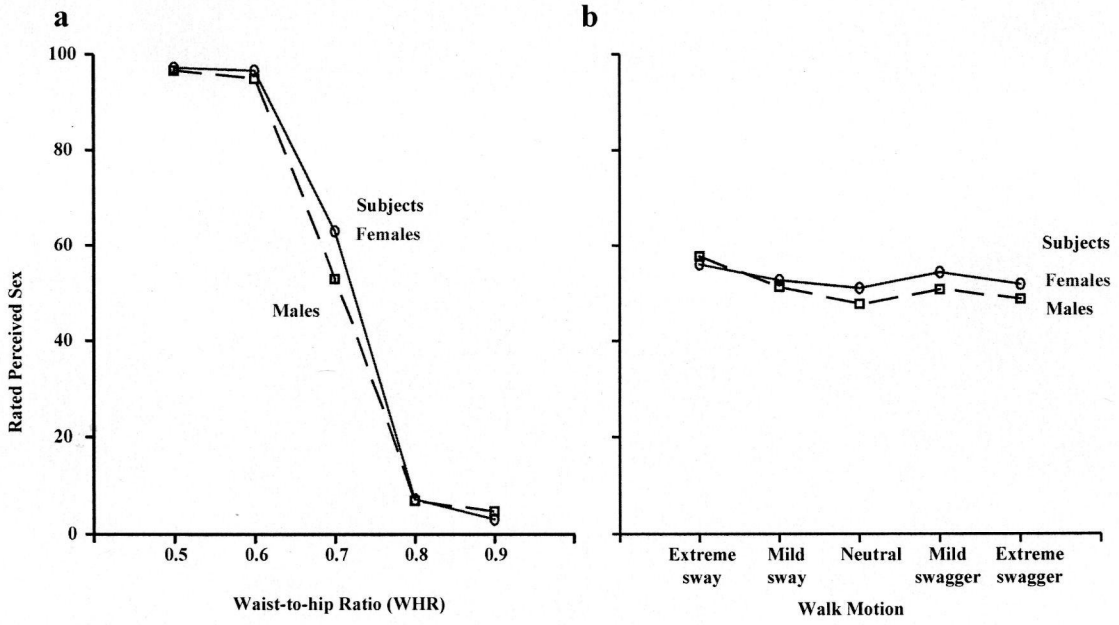

Fig. 17. Linear plots of rated perceived sex. Mean values are plotted. Graph a is the plot of WHR, while graph b is the plots of walk motion. Value of 0 indicates that the walker was recognized as male while value of 100 indicates that the walker was identified as female.

Table 6. Statistical data of rated perceived sex. Mixed-model ANOVA with two within subjects (WHR and walk) factors and one between subjects factor (sex of participant) for rated perceived sex using unique sums of squares.

Source of Variation	SS	DF	MS	F	Sig. Of F
SEX	1.14	1	1.14	7.19	0.008
Error	53.33	336	0.16		
WHR	1420.47	4	355.12	2513.51	0
SEX BY WHR	3.308	4	0.77	5.5	0
Error	189.89	1344	0.14		
WALK	5.4	4	1.35	19.28	0
SEX BY WALK	0.63	4	0.16	2.24	0.63
Error	94.15	1344	0.07		
WHR * WALK	12.04	16	0.75	12.39	0
SEX BY WHR * WALK	1.84	16	0.12	1.92	0.015
WITHIN+RESIDUAL	326.5	5376	0.06		

An analysis of variance (ANOVA) with two within subjects (the WHR and walk motion) factors and one between subject factor (participants sex) was carried out on the data. The results of ANOVA (see table 6) indicated that the main effect of participants sex $F(1,336)=7.19$, $p<0.01$; WHR $F(4,1344)=2513.51$, $p<0.01$; walk motion, $F(4,1344)=19.28$, $p<0.01$, were statistically significant.

Fig. 17a shows that approximated 97% of all 365 participants judged figures with WHRs of 0.5 and 0.6 to be female, while figures with WHRs of 0.8 and 0.9 were judged to be male by approximated 94% of participants. There was little consensus as to the sex of the figures with a WHR of 0.7 since 58 % of participants judged the figures to be female while 42 % judged to be male. Fig. 17b shows that there was no clear consensus as to the sex of the figures based solely on walk motion. See appendix C for the numerical values of the plots.

Perceived masculinity

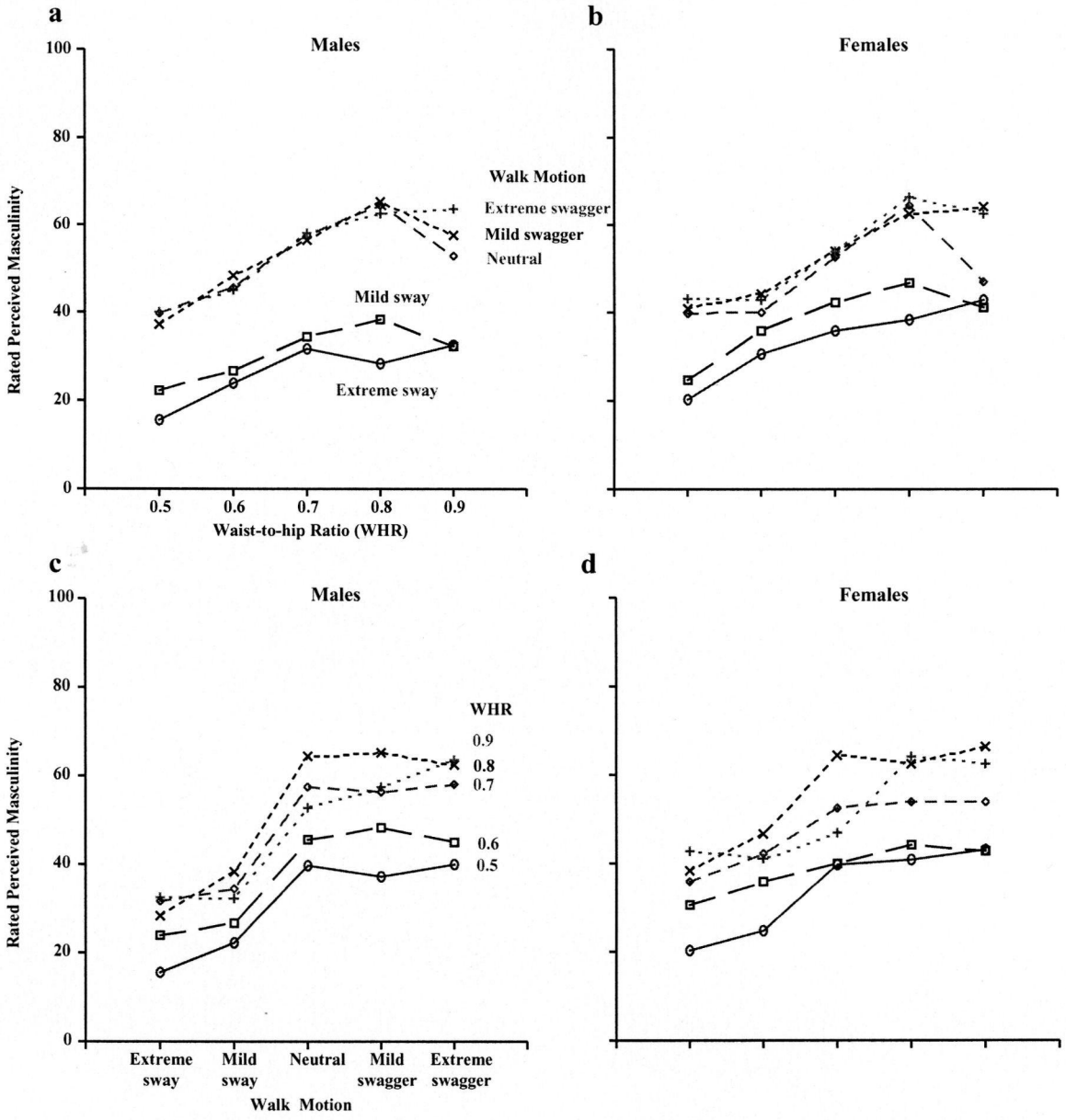

Fig. 18. Linear plots of rated perceived masculinity. Mean values are plotted. The upper two graphs are the plots of the walk motion according to the waist-to-hip ratio (WHR). The lower two graphs are the plots of WHR according to walk motion. Graphs a and c are plots rated by male participants while graphs b and d display the results from the female participants.

Table 7. Statistical data of rated perceived masculinity. Mixed-model ANOVA with two within subjects (WHR and walk) factors and one between subjects factor (sex of participant) for rated perceived masculinity using unique sums of squares.

Source of Variation	SS	DF	MS	F	Sig. Of F
SEX	0.25	1	0.25	0.82	0.366
WITHIN+RESIDUAL	106.66	351	0.3		
WHR	55.3	4	13.82	167.52	0
SEX BY WHR	0.24	4	0.06	0.72	0.581
WITHIN+RESIDUAL	115.87	1404	0.08		
WALK	110.95	4	27.74	420.87	0
SEX BY WALK	0.71	4	0.18	2.67	0.031
WITHIN+RESIDUAL	92.53	1404	0.07		
WHR * WALK	6.18	16	0.39	10.32	0
SEX BY WHR * WALK	0.62	16	0.04	1.03	0.42
WITHIN+RESIDUAL	210.15	5616	0.04		

The results of ANOVA (see table 7) indicated that the main effect of sex $F(1, 351) = 0.82$, $p = 0.37$, was not statistically significant. However, the main effects of the WHR $F(4, 1404) = 167.5$, $p < 0.01$; walk motion $F(4, 1404) = 420.9$, $p < 0.01$, were statistically significant. In addition, the attributes of WHR x walk motion $F(16, 5616) = 10.3$, $p < 0.01$; sex by walk motion $F(4, 1404) = 2.67$, $p = 0.03$, were also statistically significant, while a sex by WHR $F(4, 1404) = 0.72$, $p = 0.58$; sex by WHR x walk $F(16, 5616) = 1.03$, $p = 0.42$, were not.

Fig. 18 shows linear plots of rated perceived masculinity. Mean values are plotted. The upper two graphs are the plots of the walk motion according to the waist-to-hip ratio (WHR). The lower two graphs are the plots of WHR according to walk motion. Fig 18a and 18c are plots rated by male participants while fig 18b and 18d display the results from the female participants.

Perceived femininity

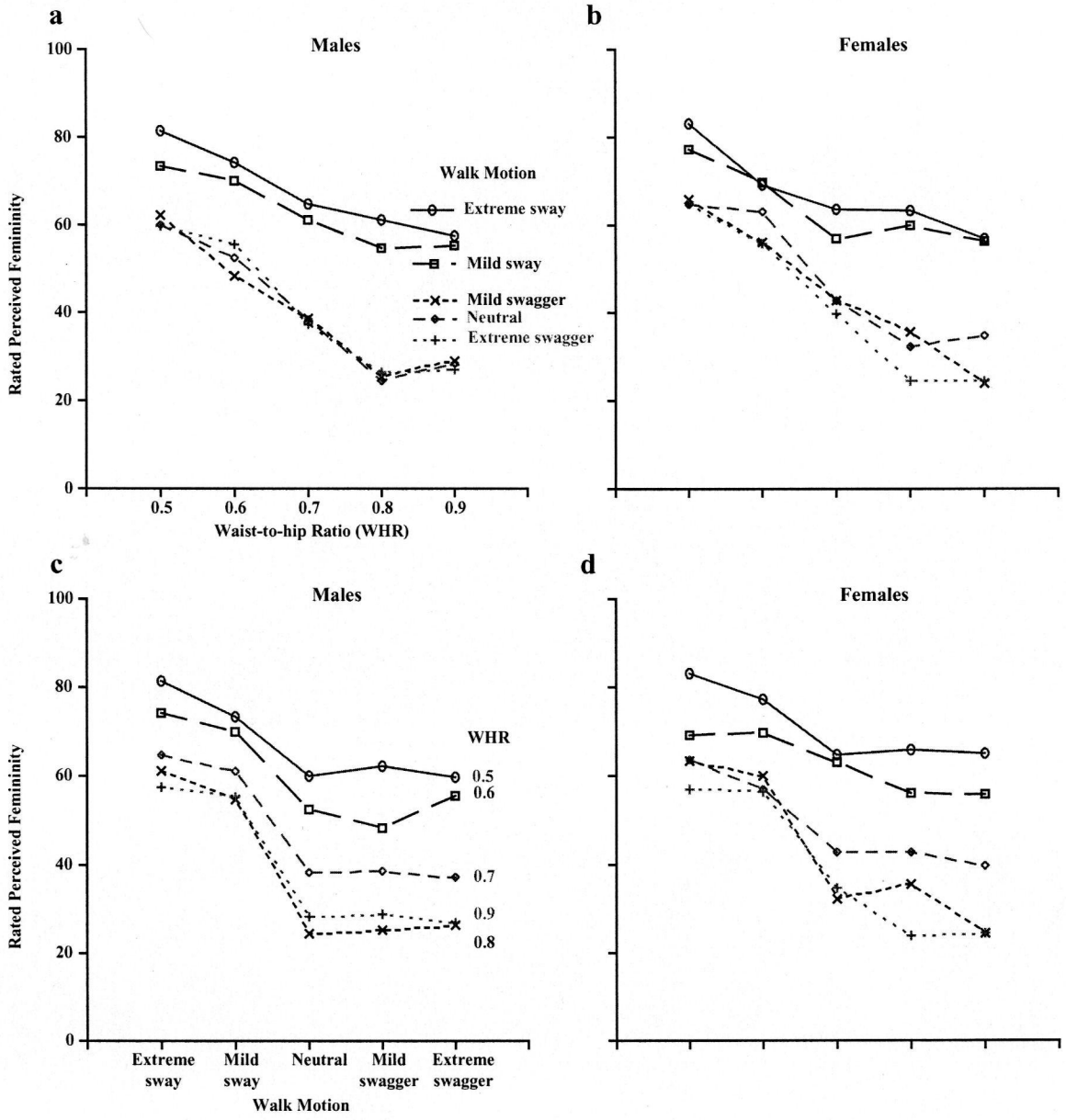

Fig. 19. Linear plots of rated perceived femininity. Mean values are plotted. The upper two graphs are the plots of the walk motion according to the waist-to-hip ratio (WHR). The lower two graphs are the plots of WHR according to walk motion. Graphs a and c are plots rated by male participants while graphs b and d display the results from the female participants.

Table 8. Statistical data of rated perceived femininity. Mixed-model ANOVA with two within subjects (WHR and walk) factors and one between subjects factor (sex of participant) for rated perceived femininity using unique sums of squares.

Source of Variation	SS	DF	MS	F	Sig. Of F
SEX	0.82	1	0.82	3.24	0.073
Error	88.76	353	0.25		
WHR	122.54	4	30.64	388.05	0
SEX BY WHR	0.11	4	0.03	0.36	0.841
WITHIN+RESIDUAL	111.47	1412	0.08		
WALK	121.12	4	30.28	425.81	0
SEX BY WALK	0.54	4	0.13	1.89	0.11
WITHIN+RESIDUAL	100.41	1412	0.07		
WHR * WALK	9.34	16	0.58	16.55	0
SEX BY WHR * WALK	0.76	16	0.05	1.34	0.162
WITHIN+RESIDUAL	199.3	5648	0.04		

The results of ANOVA (see table 8) indicated that the main effect of sex $F(1, 351) = 3.2$, $p = 0.07$, was not statistically significant. However, the main effects of the WHR $F(4, 1412) = 388.1$, $p < 0.01$; walk motion $F(4,1412) = 425.8$, $p < 0.01$, were statistically significant. In addition, the attributes of WHR x walk motion $F(16, 5648) = 16.6$, $p < 0.01$, was also statistically significant. However, sex by WHR $F(4, 1412) = 0.36$, $p = 0.84$; sex by walk motion $F(4, 1412) = 1.89$, $p = 0.11$; sex by WHR x walk motion $F(16, 5616) = 1.34$, $p = 0.16$, were not statistically significant.

Fig. 19 shows linear plots of rated perceived femininity. Mean values are plotted. The upper two graphs are the plots of the walk motion according to the waist-to-hip ratio (WHR). The lower two graphs are the plots of WHR according to walk motion. Fig. 19a and 19c are plots rated by male participants while fig. 19b and 19d display the results from the female participants.

Perceived attractiveness

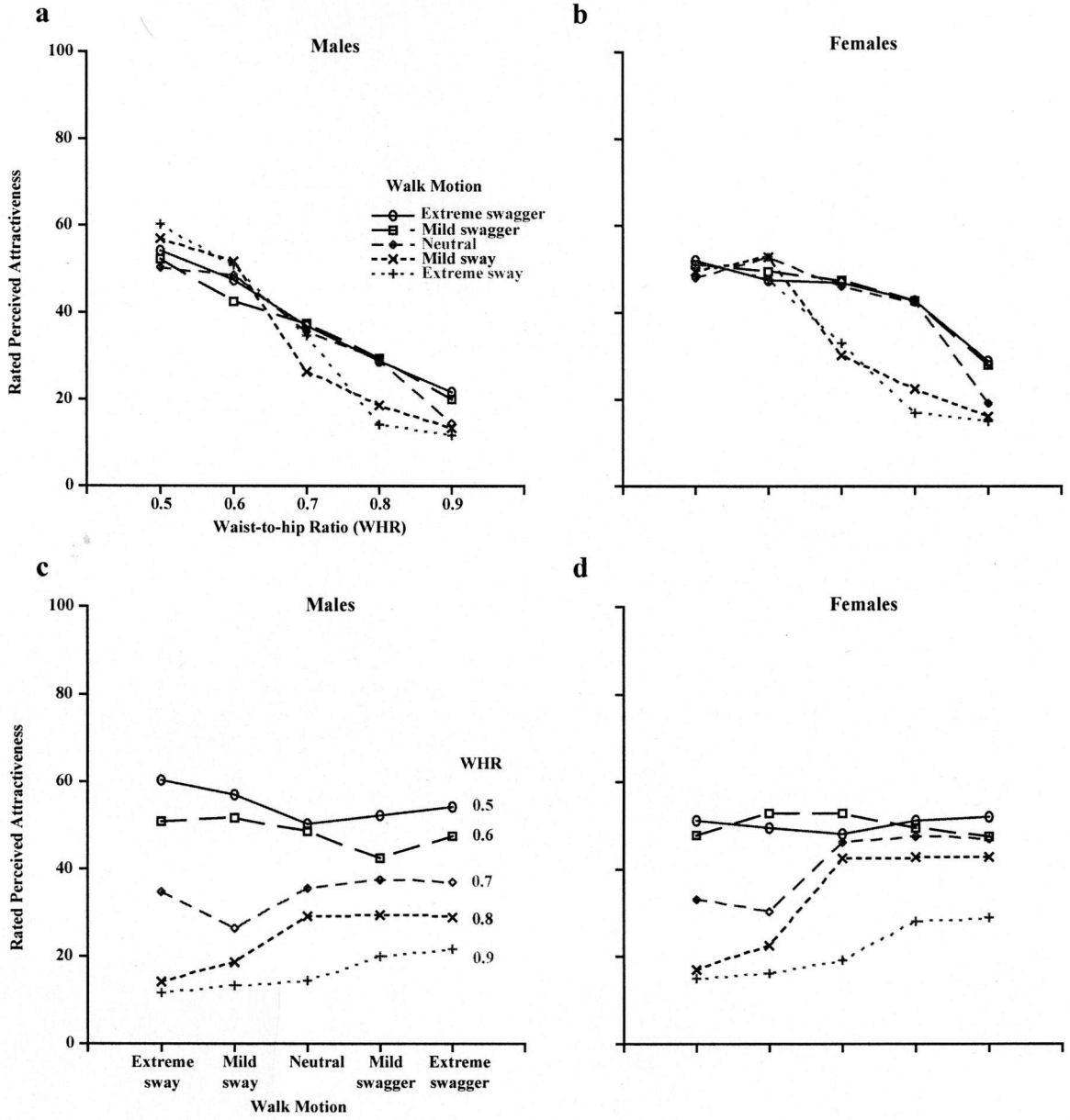

Fig. 20. Linear plots of rated perceived attractiveness. Mean values are plotted. The upper two graphs are the plots of the walk motion according to the waist-to-hip ratio (WHR). The lower two graphs are the plots of WHR according to walk motion. Graphs a and c are plots rated by male participants while graphs b and d display the results from the female participants.

Table 9. Statistical data of rated perceived attractiveness. Mixed-model ANOVA with two within subjects (WHR and walk) factors and one between subjects factor (sex of participant) for rated perceived attractiveness using unique sums of squares.

Source of Variation	SS	DF	MS	F	Sig. Of F
SEX	3.07	1	3.07	6.2	0.013
WITHIN+RESIDUAL	173.89	351	0.5		
WHR	137.21	4	34.3	400.36	0
SEX BY WHR	4.41	4	1.1	12.87	0
WITHIN+RESIDUAL	120.3	1404	0.09		
WALK	8.23	4	2.06	55.28	0
SEX BY WALK	2.38	4	0.6	16	0
WITHIN+RESIDUAL	52.27	1404	0.04		
WHR * WALK	16.97	16	1.06	36.74	0
SEX BY WHR * WALK	0.65	16	0.04	1.4	0.133
WITHIN+RESIDUAL	162.12	5616	0.03		

The results of ANOVA (see table 9) indicated that the main effect of sex $F(1,351) = 6.20$, $p = 0.013$; WHR $F(4,1404)= 400.46$, $p < 0.01$; walk motion $F(4,1404) = 55.28$, $p < 0.01$, were statistically significant. In addition, the main effect of sex was qualified by a sex $F(4,1404)= 400.46$, $p < 0.01$, and a sex by walk motion interaction $F(4,1404) = 55.28$, $p < 0.01$. Surprisingly, the WHR x walk motion interaction $F(16, 5616) = 36.74$, $p < 0.01$, was statistically significant, while the sex by WHR x walk motion $F(16, 5616) = 1.40$, $p = 0.13$, was not.

Fig. 20 shows linear plots of rated perceived attractiveness. Mean values are plotted. The upper two graphs are the plots of the walk motion according to the waist-to-hip ratio (WHR). The lower two graphs are the plots of WHR according to walk motion. Fig. 20a and 20c are plots rated by male participants while fig. 20b and 20d display the results from the female participants.

DISCUSSION

Perceived sex

Experiment results suggested that there is a strong relationship between identifying the biological sex of figures and the shape of the body(i.e., WHR), as both male and female participants used primary the WHR and not walk motion to identify the biological sex of figures. In general, figures with lower WHRs were identified as female, while figures with higher WHRs were identified as male. Specifically, both male and female participants perceived figures with WHRs of 0.5 and 0.6 to be female while figures with WHRs of 0.8 and 0.9 to be male. There was little consensus as to the sex of the figures with a WHR of 0.7.

The typical range of WHR for healthy female has been reported to be 0.67 – 0.80. In addition, previous WHR studies reported that when the two-dimensional line drawings of female figures were used to assess the perceived attractiveness, WHR of 0.7 was rated most attractive. Accordingly, figures in the present study with WHRs of 0.7 and 0.8 should have been identified as female. On the contrary, neither were identified to be female. Instead, figures with a WHR of 0.8 were identified as male, while figures with a WHR of 0.7 were judged neither male or female. Only figures with WHRs of 0.5 and 0.6 were perceived by a majority of participants as female. Important to note that there was the differences in figures used as stimuli between previous studies and ours, in which previous study used line drawings female figures with WHR ranging 0.7 – 1.0 while our stimuli were construct with three-dimensional androgynous figures with WHRs between 0.5 and 0.9.

Perceived masculinity and femininity

The WHR and walk motion had both independent and interaction effects on judgements of masculinity and femininity. In general, judged masculinity increased as the WHR increased. For example, a WHR of 0.8 had the highest masculinity followed by WHRs of 0.7, 0.9, 0.6 and 0.5, indicating that masculinity was more strongly associated with a male body shape than with a female body shape. By contrast, the degree of femininity increased as the WHR declined. Judged femininity was the highest for figures with WHR of 0.5, followed by WHRs of 0.6, 0.7, 0.8 and 0.9, indicating that femininity was high with a female body shape and low with a male body shape.

In terms of walk motion, the shoulder motion of the figures appeared less important than the hip motion of the figures with respect to judgements of masculinity. Overall, masculinity increased as hip motion decreased and, in particular, figures with moderate to low hip motion and moderate to high shoulder motion were judged equally high in masculinity. For example, figures with neutral, mild and extreme swaggers were equally judged highest in masculinity, and figures with extreme sway were judged lowest in masculinity.

Hip motion also tended to be more important than shoulder motion for judgements of femininity. Overall, femininity increased as hip motion increased. Specifically, figures with extreme sway were judged highest in femininity, while figures with moderate to low hip motion were judged equally feminine. In addition, figures with neutral, mild and extreme swaggers were equally judged lowest in femininity.

Overall, hip motion was a stronger predictor than shoulder motion of perceived masculinity and femininity because femininity increases as the degree of hip motion increases and masculinity increases as hip motion subsides. However the progressive increase in masculinity was not seen as the degree of shoulder motion increases.

Perceived attractiveness

In general, it might be expected that males and females would receive roughly equal scores on attractiveness in terms of male and female attractiveness if the male attractiveness is based on figures with male WHRs (i.e., WHRs of 0.8 and 0.9) while the female attractiveness is based on female WHRs (i.e., WHRs of 0.5 and 0.6). However, such trend was not found in the present study.

The degree of attractiveness tended to increase as the WHR decreased. For instance, figures with WHR of 0.5 were judged most attractive, while figures with WHR of 0.9 were judged least attractive. This finding could be interpreted in terms of two opposed explanations. One explanation is that figures with WHRs of 0.8 and 0.9 appeared less attractive due to distortions in the figure caused by waist and hip re-scaling. As a consequence, participants might have judged these unfamiliar shapes as typically less attractive than figures with familiar WHRs (i.e. female WHRs). The other explanation is that, in general, the female body is more biologically attractive than the male body.

In addition, there was a strong interaction between WHR and walk motion for judgements of attractiveness. Overall, male bodies (WHRs of 0.8 and 0.9) had higher

attractiveness with mild and extreme swagger than with other walk motions (see fig. 20a and 20b), while female bodies (WHRs of 0.5 and 0.6) had higher attractiveness with mild and extreme sway than with other walk motions (see fig. 20a). Moreover, participants were more sensitive to changes in walk motion of opposite sex figures when that motion was consistent with the perceived sex. That is, compared to female participants male participants rated the figures with female WHRs to be more attractive when they walked with either a mild or extreme sway. Conversely, compared to male participants female participants rated the figures with male WHRs as more attractive when they walked with either a mild or extreme swagger. In addition, variations in walk motion appeared to be less salient to observers when judging same-sex figures. Specifically, female participants rated figures with female WHRs equally attractive regardless of walk motion, and male participants were far less influenced by walk motion than were female participants when rating male WHR figures.

Summary

The perceived sex was determined primary by variation in the WHR. That is, figures with WHRs of 0.5 and 0.6 were judged nearly unanimity to be female, figures with WHRs of 0.8 and 0.9 were nearly unanimated judged to be male, and there was little consensus as to the sex of the figures with a WHR of 0.7.

In contrast, judgements of perceived gender were influenced equally by both the WHR and walk motion. In general, masculinity increased as the WHR increased and femininity increased as the WHR decreased. The hip motion was reliable predictor for

perceived gender. That is, the femininity increased as the degree of hip motion was accentuated while masculinity increased as the hip motion was attenuated. In addition, the shoulder motion failed to be reliable predictor for judged gender. Although, higher degrees of shoulder motion might be expected to predict perceived masculinity.

Perceived attractiveness was also affected by both WHR and walk motion. Surprisingly, the degree of attractiveness increased as the WHR declined and this may suggest that the female body is more attractive generally than the male body. In addition, female participants rated the attractiveness of figures with male WHRs and minimal hip motion (i.e., mild and extreme swagger) higher than male participants, while the attractiveness of figures with female WHRs and pronounced hip motion (i.e., mild and extreme swagger) were rated higher by male participants than female participants.

PERCEPTION BASED MODELING AND ANIMATION GUIDELINES

Overview

The following guidelines utilize the walking motion and body shape of the figure to add perceived sex and gender in order to generate more expressive and appealing character animation. In other words, these guidelines explain the method to model and animate the walk cycle of a figure that will be recognized as male or female (perceived sex) as well as masculine or feminine (perceived gender). See video in appendix E for graphical demonstration of these guidelines.

The perceived sex of figure is controlled by the body shape, specifically, the waist-to-hip ratio (WHR) of the figure. The perceived gender is controlled by both WHR and the specific movement in the walk motion of the figure independently and interactively. For example, if one wants to create a feminine female walk cycle, how can this be achieved in terms of modeling and animating the figure? These guidelines will answer these questions by providing essential and practical information based on psychological experiments.

These guidelines are organized into two halves. The first topic summarizes the significant findings about perceived sex, gender and attractiveness from our experiment. Next topic presents the procedure which explains how to pre-visualize and plan the animation, while the rest of section describes how to model and animate the figure to control its perceived sex and gender.

Who can benefit from these guideline?

These guidelines will benefit the animator who wants to model and animate a human character and add extra feature to imply sex and gender. They can find practical information about how to model and animate the figure in order to achieve their goals. These guidelines are also an informative reference to learn how we perceive sex and gender from the body shape and walk motion.

As a future application, These guidelines can be integrated with a walk designing module to interactively control the effect of perceived sex and gender. Moreover, this method can be used as an algorithm to create computer driven characters in a virtual reality environment.

Requirements

Basic knowledge of 3D-animation, e.g. keyframing and re-scaling objects, will make These guidelines easier to read and immediately applicable to the character animation project. Furthermore, 3D animation software that is capable of keyframe animation and NURBS or polygonal modeling will be needed.

Summary of findings about perceived sex, gender and attractiveness

Perceived sex

Perceived sex relates to the biological sex of an individual, either male or female, as observed and judged by a spectator. Our results showed that perceived sex is determined primary by the waist-to-hip ratio (WHR) of a figure. Our findings indicate

that figures with low WHRs, such as 0.5 and 0.6, are consistently judged to be female, while figures with high WHRs, such as 0.8 and 0.9, are consistently judged to be male.

Perceived gender

Perceived gender (i.e., either masculine or feminine) was found to be determined by both the WHR and expressive movement during the walk cycle independently and interactively. In general, the WHR increases perceived masculinity increases. Conversely, perceived femininity increases as the WHR decreases. More specifically, male WHRs are perceived as highly masculine, while female WHRs are perceived as highly feminine.

Expressive movement during walk cycle also plays an important role in the perception of gender. For example, perceived masculinity increases as the degree of hip movement decreases, whereas femininity increases as the degree of hip movement increases.

Perceived attractiveness

Perceived attractiveness is regarded as either male or female attractiveness rather than inter-sexual or universal attractiveness. Attractiveness appears to be determined secondary to either sex or gender. Various combinations of WHRs and expressive movement alter the degree of attractiveness. High male attractiveness is obtained from the combination of high WHRs and a low degree of hip movement, while the combination of low WHRs and a high degree of hip movement generate the highest perceived female

attractiveness. Moreover, male and female viewers react differently toward the attractiveness of same-sex and opposite-sex figures. In general, viewers were more sensitive to changes in walk motion of opposite sex figures when that motion was consistent with the perceived sex. In addition, variation in walk motion appeared to be less salient to observers when judging same-sex figures.

More specifically, for female viewers, a highly masculine walk is more attractive than a medium one because female viewers appear to be more sensitive to male movement, In contrast, male viewers do not perceived much difference in attractiveness between high and medium masculine walk animations presumably because male viewers are less sensitive to the expressive movement of other males.

Therefore, the level of detail required in modeling the WHR as well as animating expressive movement is at least partially a function of the sex of the audience. If animations are intended for a same-sex audience, the subtlety in detail becomes invisible to them. In contrast, these subtle variations maybe apparent to an opposite-sex audience.

Procedure

Determining the WHR and walk motion

This following section explains how to create a walking figure that can express the intended sex and gender. The WHR is the crucial attribute to create both perceived sex and gender. In addition, hip movement in the walk motion is an important attribute

for manipulating the perceived gender. Before you start modeling and animating the figure, a plan needs to be laid out. There are two necessary questions ask yourself:

1) Is the figure going to be male or female?

2) Is the figure masculine or feminine? And what degree of masculinity or femininity do you want the figure to display?

In the first step, the WHR of the figure should be determined. Second, the hip movement of walk motion will be decided. For example, if you intend to make an extremely feminine female figure, the WHR must be low. Moreover, since the highest degree of femininity has to be achieved, the lowest reasonable WHR should be chosen. Second, since the higher degree of hip movement produces higher femininity, choose the highest degree of hip movement (see table 3 in page 18).

Modeling the WHR

Whether you modify an existing human figure or model it from scratch, creating a smooth and continuous curve running down from the chest to hip via waist (chest-waist-hip line) is crucial. Abrupt lines between chest and waist or waist and hip or an excessively deformed body makes your figure less appealing. One important tip to create a good model is to use pictures of a real human as reference. Using reference material will make your work much easier. You might think that the time spent gathering this information would slow down your process, and you might therefore create a quick sketch of your model in your mind and skip directly to the modeling stage. However, this is the wrong approach and an unprofessional attitude. Your entire process will

actually be more efficient if you use good reference materials because you can get the exact information you need to know. These days, high quality pictures for your reference can easily be gathered from the Internet, magazines or photographic books. Since These guidelines primary deal with the numerical terms of WHR but not the actual shape, refining the chest-waist-hip line needs to be explored individually.

If you use an existing figure, re-scaling the waist and hip will be the easiest way. However, modeling from scratch has the advantage that you can create the desired WHR while maintaining a smooth and continuous chest-waist-hip line.

Female WHR is low and the chest-waist-hip line resembles the outline of an hourglass. The object in creating a female WHR is to model a narrow waist relative to the chest and wider hip relative to the waist. In addition, the average shoulder-to-hip ratio of females is 0.96. Therefore, the width of the hip should be same as that of the chest. In contrast, male WHR is high and the chest-waist-hip line resembles an inverted tapered rectangle, much less curvilinear than that of a female. The goal when creating a high male WHR is to model the hips smaller than chest, and to model the waist somewhere between the measurement chest and hips. Since the average shoulder-to-hip ratio for males is 1.10, the width of the shoulder should be smaller than that of the chest.

Computing WHR is the next step. First, you measure the circumference of the waist and hips of the figure. If there are measuring tools available in your animation package use them to take these measurements. Otherwise, you will need to improvise your own tools. For example, the use of an ellipse is one way of measuring circumference (see fig. 15 in page 27). First, create an ellipse, and then re-scale the

ellipse, matching the major axis of the ellipse to the breadth of the waist. Similarly, match the minor axis of the same ellipse to the depth of the waist. Use both frontal and side view of the figure for fine adjustment. Next, take the measurement from the major and minor axis of the ellipse. Finally, the circumference of the waist may be computed by the equation below.

$$P = 2\pi\sqrt{\frac{a^2 + b^2}{2}}$$

Where: a = length of minor axis of ellipse

b = length of major axis of ellipse

P = circumference of ellipse

Animating the walk

After completing the modeling, you will proceed to animate a walk cycle. These guidelines do not present an entire tutorial for creating a walk cycle. To learn more about this process, George Maestri (1996) has written good entry-level character animation book, *Digital Character Animation*, in which he discusses how to create a walk cycle in detail. Also, use reference materials from the real world. You can videotape yourself walking and watch it frame by frame to learn more about the walk motion. This is similar to what Edward Muybridge (1979) did in late 19th century. Muybridge's photographic studies of the sequential motion of nude models have been collected into one volume, and this book can serve as an extremely valuable reference for an animator.

And if you use video, you can make this kind of reference by yourself. It's an easy, fast and economical way to gather useful information on human motion.

Perceived gender is mainly influenced by the hip movement when the individual walks. However, it does not mean that shoulder movement can be ignored. Our experiment did show that varying the degree of shoulder movement from low to high has little effect on perceived gender. However, the shoulder still needs to be animated even though the motion is not prominent. Although the shoulder motion does not contribute to perceived gender it is vital for creating a natural looking walk cycle. During the walking gait, virtually every part of the body is moving. Some of these motions are subtle, like head bouncing, and some are prominent, like arm swing. If any segment of the body does not move and instead keeps its location steady, the animation will look unnatural and unappealing. Therefore, the shoulder needs to be animated to create believable body movement during the walking gait. For step by step instruction to animate hip and shoulder movement, refer to "creating walk motion" section from page 18 to 25 of this thesis.

SUMMARY AND CONCLUSION

The perceived sex, gender and attractiveness were studied in terms of walk motion and body shape of human figures. Five different walk motion varying the degree of both hip and shoulder movements were crossed to five different body shapes varying its waist-to-hip ratio (WHR). The results of the study suggested that perceived sex (male or female) is determined primary by WHR of the figure. For example, figures with low WHRs were identified to be female, while figures with high WHRs were identified to be male. The perceived gender (masculine or feminine) was judged by both WHR and walk motion independently and interactively. For instance, masculinity was high with high WHRs and low degree of hip movement, while femininity was high with low WHRs and higher degree of hip movement. Perceived attractiveness was also influenced by both WHR and walk motion independently and interactively. Significant interaction was found. For example, male and female participants reacted toward the attractiveness of opposite sex more sensitive than that of same sex. The WHR and walk motion did affect the judgement of attractiveness. However, the analysis could not conclude that WHR and walk motion were primary cue for the judgement of attractiveness. It suggested that cue for the judging attractiveness is more complex than we thought.

Based on this finding, "gender based modeling and animation" guideline was presented to provide information to animators how to add perceived sex and gender to character animation. This guideline can be applied to build a module to generate walk motion, or used as algorithm to create characters in virtual reality environment.

As further application of this study, WHR could be applied to any object rather than human figure. For example, the WHR can be applied to a perfume bottle to create appealing perfume containers targeting to either men's or women's. To make the perfume bottle that may appeal to women, small WHR can be applied to modify the shape of the bottle resembles to a woman's body. Therefore, the perfume bottle may be able to express the femininity by its shape and it may signify the content.

For future study, perceived gender can be controlled by any kind of human motion not to be fixed to only walk motion. For example, perception based animation can be extended to more complex animations such as facial expression, the animations of running, dancing or body language.

As an on-going research, we are interested in the effect of shoulder-to-hip ratio (SHR) on the recognition of perceived sex and the judgement of perceived gender and attractiveness. Since male has wider shoulder that female, while female has wider hip than male, this body structural difference between male and female may play important role to such judgements.

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APPENDIX A

THE ANIMATION ORDER OF TAPE 1 AND 2

Two sets of video tapes were prepared for the experiment. Each tape has different stimulus order (see tables A-1 and A-2). Tape 1 was used in experiment session 1, 3 and 5. Tape 2 was used in experiment session 2, 4 and 6. These experiment tapes consisted of the preview and task phases. The preview phase contained all 25 randomly ordered animations to give the participant a preview of what they would be asked to watch and rate. The average duration of each animation was about 11 seconds. The title and sequence number for each animation were not displayed. The task phase also included 25 randomly ordered animations; however, the preview and task phases utilized different random orders. In the task phase, a sequence number was displayed at the beginning of each animation as "Sequence 1", and 15 seconds of freeze frame with text "Please Rate" was displayed following each animation to allow the participants time to rate each animation. The title and description for each animation were not shown, neither were the sounds of foot steps nor background music added to the tape.

Table A-1. Stimulus order of tape 1

Tape 1 preview			Tape 1 task		
Sequence	WHR	Walk motion	Sequence	WHR	Walk motion
1	0.9	Extreme sway	1	0.9	Extreme swagger
2	0.6	Extreme swagger	2	0.8	Extreme swagger
3	0.7	Extreme swagger	3	0.7	Mild sway
4	0.6	Neutral	4	0.8	Extreme sway
5	0.5	Mild swagger	5	0.6	Extreme swagger
6	0.9	Mild sway	6	0.5	Mild swagger
7	0.9	Extreme swagger	7	0.9	Neutral
8	0.8	Extreme swagger	8	0.9	Mild sway
9	0.5	Extreme sway	9	0.7	Extreme sway
10	0.7	Mild swagger	10	0.6	Neutral
11	0.8	Extreme sway	11	0.7	Neutral
12	0.9	Neutral	12	0.5	Mild sway
13	0.7	Mild sway	13	0.5	Extreme sway
14	0.6	Extreme sway	14	0.5	Extreme swagger
15	0.8	Mild sway	15	0.6	Extreme sway
16	0.8	Mild swagger	16	0.9	Mild swagger
17	0.8	Neutral	17	0.9	Extreme sway
18	0.6	Mild swagger	18	0.7	Mild swagger
19	0.5	Mild sway	19	0.7	Extreme swagger
20	0.7	Neutral	20	0.8	Neutral
21	0.5	Neutral	21	0.8	Mild sway
22	0.5	Extreme swagger	22	0.5	Neutral
23	0.7	Extreme sway	23	0.6	Mild swagger
24	0.9	Mild swagger	24	0.8	Mild swagger
25	0.6	Mild sway	25	0.6	Mild sway

Table A-2. Stimulus order of tape 2

Tape 2 preview			Tape 2 task		
Sequence	WHR	Walk motion	Sequence	WHR	Walk motion
1	0.6	Mild sway	1	0.9	Extreme sway
2	0.7	Extreme swagger	2	0.9	Extreme swagger
3	0.9	Extreme sway	3	0.8	Neutral
4	0.8	Mild swagger	4	0.7	Mild swagger
5	0.8	Extreme sway	5	0.6	Mild sway
6	0.6	Extreme swagger	6	0.7	Mild sway
7	0.9	Extreme swagger	7	0.8	Extreme sway
8	0.6	Neutral	8	0.8	Mild swagger
9	0.8	Mild sway	9	0.6	Extreme sway
10	0.6	Extreme sway	10	0.7	Extreme swagger
11	0.5	Neutral	11	0.6	Extreme swagger
12	0.9	Mild swagger	12	0.6	Neutral
13	0.5	Extreme sway	13	0.9	Neutral
14	0.5	Mild sway	14	0.7	Extreme sway
15	0.8	Neutral	15	0.8	Mild sway
16	0.7	Mild sway	16	0.5	Mild sway
17	0.7	Extreme sway	17	0.8	Extreme swagger
18	0.7	Mild swagger	18	0.6	Mild swagger
19	0.9	Mild sway	19	0.9	Mild sway
20	0.6	Mild swagger	20	0.7	Neutral
21	0.5	Mild swagger	21	0.5	Extreme sway
22	0.7	Neutral	22	0.5	Extreme swagger
23	0.5	Extreme swagger	23	0.9	Mild swagger
24	0.9	Neutral	24	0.5	Neutral
25	0.8	Extreme swagger	25	0.5	Mild swagger

APPENDIX B

FORMS FOR EXPERIMENT

The following are forms used for the experiment. They are the approval documents by the Institutional Review Board Human Subjects in Research, Texas A&M University, an informed consent and a rating sheet used during the experiment.

APR-16-1999 03:07 P.02

TAMU #_____

Texas A&M University
Form I
Summary Cover
Protocol for Human Subjects in Research

Please check off or provide details on the following (enter N/A if not applicable):

Principle Investigator *Louis G. Tassinary* Faculty _X_ Graduate Student*___

College/Dept *Environmental Psychophysiology Lab/Coll. of Architecture* Mail Stop *3137* Phone *847-9351*

Project Title *Gender & Attractiveness*

Subjective Estimate of Risk to Subject: ___Low ___Moderate ___ High _X_None

Gender of Subjects: ___Male ___Female _X_Both Age(s): *Any* Total Participants (est.): *100*

Source of Subjects
_X_Psychology Subject Pool
___Other TAMU Students
___Community
___Public Schools
___Hospitals/Nursing Homes
___Prisons
___Other (Please Specify)_____

Subject Recruitment
___Direct Person-to-Person contact
___Telephone Solicitation
___Newspaper Ad**
___Letter**
_X_Posted Notices**
___Other (Please Describe)_____

APPROVED

Compensation*** Yes___ No_X_
Deception† Yes___ No_X_

Location of Experiment *Langford Architecture Center, Bldg. C, Room 105C*

Invasive or Sensitive Procedures
___Blood Samples
___Physical Measurements (electrodes, etc.)
___Psychological Inventory
___rDNA
___Urine Samples
___Stress Exercise
___Review of Medical Records
___Other (Specify)_____

Sensitive Subject Matter Yes___ No_X_
___Alcohol, Drugs, Sex
___Depression/Suicide
___Learning Disability
___Other (Specify)_____

Use of Video_____ Audio Tapes_____ None_X_
Retained Yes___ No___
Length of Time_____
Destroy/Erase Yes___ No___
Other (explain)_____
Use Specified in Consent Form? Yes___ No___
Use/Access to tapes?

Provisions for Confidentiality
___Replies Coded
___Secure Storage
___Anonymous Response
_✓_Confidential Response

Exact Location Where Signed Consent Forms Will be Filed *Langford Architecture Center, Bldg. C, Room 426*
(Must be kept on file for 3 years after the completion of the project)

* Must include signature of committee chair on protocol.
** Please Attach
*** Please attach conditions, schedule of payment.
† If yes, attach a debriefing form

REQUEST FOR EXEMPTION from full IRB review

Some research projects involving human subjects are exempt from full review by the IRB. See the attached sheet on research categories exempt from full IRB review.

Basis for Exemption [Please refer to attached "Categories Exempt From Full IRB Review."]

_____ Established Educational Settings/Normal Educational Practices (a letter of approval from a school official must be obtained before the study can be conducted; send copy to the IRB)
_____ Use of the educational anonymous tests (cognitive, diagnostic, aptitude, advancement; attach copy).
__X__ Survey or interview procedures [unless subjects might be identified, put at legal or personal risk, and unless survey procedures deal with sensitive matters of personal behavior]
_____ Observations of public behavior [unless subjects might be identified, put at a legal or personal risk, and unless observations deal with sensitive matters of personal behavior]
_____ Anonymous collection or study of existing documents, records, pathological or diagnostic specimens.
_____ Taste and food quality evaluation and consumer acceptance studies.

APPROVED

The U.S. population is becoming increasingly culturally, linguistically, economically, and ethnically diverse. The research needs to make a concerted effort to ensure that the research subjects reflect the population demographically, including these groups who have been traditionally underrepresented. However, it is recognized that the available pool of subjects may preclude having a balanced population. If you cannot use a diverse population in your research, you must justify why not.

Jean A Canning 9-7-98
Principal Investigator Signature and Date

Graduate Committee Chair Signature and Date

Jean A Canning 9-7-98
Department Head Signature and Date

Institutional Review Board Signature and Date 4/26/98

Form II
Protocol Format for use of Human Subjects in Research

Part A
Project Title: Gender and Attractiveness
Principle Investigator: Louis G. Tassinary
Department: Environmental Psychophysiology Laboratory
College: Architecture
Phone: 847-9351
Sponsor: NSF Presidential Faculty Fellowship

Part B

I have read the Belmont Report, "Ethical Principles and Guidelines for the Protection of Human Subjects of Research," and subscribe to the principles it contains. In light of this Declaration, I present for the Board's consideration the following information which will be explained to the subject about the proposed research:

1. Selection and Sources of Subjects

A. *Source and number.* Approximately 100 students will be recruited from the Psychology Department's subject pool to participate in this study.

B. *Method of recruitment and selection.* Subjects will be recruited as per Psychology Department regulations.

C. *Ages.* There will be no restrictions on eligibility for participation (age, gender, ethnicity, etc.) other than that subjects must have normal or corrected normal vision.

D *Compensation.* Other than research credits for Introductory Psychology students, subjects will not receive compensation for their participation.

E. *Location and duration of experiment.* All experimental sessions for this study will take place in RM 105, 1st floor of Building C, Langford Architecture Center. Each session will last approximately 45 minutes and each subject will participate in one session.

F. *Specific steps to assure confidentiality or anonymity of responses/results.* Data associated with each subject's participation will be strictly confidential. Data from paper and pencil measures will be locked in room 424 of the EPL, and subjects' names will be dissociated from data stored electronically in EPL computers.

G. *Special physical or psychological conditions.* None

2. Experimental Procedure

A. *Physical/Behavioral aspects.*

Participants will be run in groups. Upon arrival, they will be asked to read and sign the informed consent form (attached). Once

they have agreed to participate, they will be informed that the stimuli will be presented on the large screen in the front of the room. They will be then be asked use the paper and pencil rating forms in front of them to both rate and rank order the attractiveness, fecundity, and likely gender of several simple schematic line drawings and animations depicting human figures varying in both static (i.e., waist and hip size) and dynamic (i.e., shoulder and hip rotation) features.

B. *Deception or Coercion.*
None

3. Risks and Benefits to the Subjects

A. The procedures for this experiment pose no risks and should constitute no discomfort for the participants.

B. Participants will receive credits towards the fulfillment of their Introductory Psychology research participation requirement. Subjects who decide not to participate or who withdraw from the study will receive full credit.

4. Signatures

9-23-98
Principal Investigator Signature and Date

9-23-98
Department Head Signature and Date

Graduate Committee Chair Signature and Date

Informed Consent

I understand that I am one of a number of students who will participate in a study in the Langford Architecture Center, 105 Building C, rating several sets of simple line drawings and animations. This study will be conducted during the fall semester of this year, and I understand that if I decide to participate, the experimental session will last approximately 45 minutes. In this study I will be asked to rank order a series of line drawings and animations based on two attributes.

I understand that the experimenter will answer any questions I have regarding procedures. I realize that I am free to withdraw my consent and to discontinue participation in the experiment at any time. I will not forfeit any credit if I decide not to participate. I understand that I may refuse to answer any questions, and that if I do so I will not forfeit any credit.

My participation in this experiment is voluntary. I understand that by participating in this experiment I will receive 1 credit towards the fulfillment of the experimental participation requirement in my Introductory Psychology course. I understand that I can fulfill the experimental participation requirement in my psychology course by serving as a subject in experiments or by writing reports of psychology experiments published in journals.

I have the assurance of the experimenter that my responses in this study will remain strictly confidential.

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

I have been given a copy of this consent form.

_____ _____

Signature (participant) Date

_____ _____

Signature (experimenter) Date

If I have any questions, I should contact one of the following persons:

Mitsutoshi Higa (experimenter)
421 Arch., Bldg. C
847-9353

Louis G. Tassinary, Ph.D. (Principal Investigator)
429 Arch., Bldg. C
847-9351

This research study has been reviewed and approved by the Institutional Review Board - Human Subjects in Research, Texas A&M University. For research related problems or questions regarding subjects' rights, the Institutional Review Board may be contacted through Dr. Richard E. Miller, IRB Coordinator, Office of the Vice President for Research and Associate Provost for graduate Studies at (409) 845-1811.

Name _____ SS# _____

Age____ Sex____ Major_____ Ethnic/Racial Background _____

RATINGS

1. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

2. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

3. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

4. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

5. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

6. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

7. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

8. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

9. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

10. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

11. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

12. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

a

13. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

14. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

15. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

16. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

17. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

18. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

19. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

20. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

21. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

22. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

23. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

24. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

25. *Sex?* Male☐ Female☐
How masculine? 0----------100
How feminine? 0----------100
How attractive? 0----------100

a

APPENDIX C

PLOT DATA

The following tables present the numerical values of linear plots shown in the results section.

Table C-1. Mean values of rated perceived sex according to WHR

WHR	Female	Male
0.5	0.9731	0.9659
0.6	0.9667	0.9492
0.7	0.6293	0.5308
0.8	0.0730	0.0697
0.9	0.0314	0.0476

Table C-2. Mean values of rated perceived sex according to walk motion

Walk motion	Female	Male
Extreme sway	0.5610	0.5770
Mild sway	0.5292	0.5127
Neutral	0.5111	0.4784
Mild swagger	0.5444	0.5073
Extreme swagger	0.5209	0.4886

Table C-3. Mean values of rated perceived masculinity rated by female participants

	WHR				
Walk motion	0.5	0.6	0.7	0.8	0.9
Extreme sway	0.2027	0.3043	0.3595	0.3848	0.4286
Mild sway	0.2472	0.3581	0.4218	0.4676	0.4122
Neutral	0.3968	0.4002	0.5241	0.6450	0.4687
Mild swagger	0.4081	0.4406	0.5389	0.6262	0.6412
Extreme swagger	0.4296	0.4279	0.5395	0.6648	0.6258

Table C-4. Mean values of rated perceived masculinity rated by male participants

	WHR				
Walk motion	0.5	0.6	0.7	0.8	0.9
Extreme sway	0.1550	0.2400	0.3165	0.2844	0.3245
Mild sway	0.2212	0.2681	0.3432	0.3839	0.3219
Neutral	0.3978	0.4545	0.5763	0.6451	0.5284
Mild swagger	0.3722	0.4831	0.5644	0.6540	0.5756
Extreme swagger	0.4012	0.4493	0.5811	0.6248	0.6366

Table C-5. Mean values of rated perceived femininity rated by female participants

	WHR				
Walk motion	0.5	0.6	0.7	0.8	0.9
Extreme sway	0.8314	0.6910	0.6370	0.6338	0.5700
Mild sway	0.7729	0.6980	0.5693	0.6011	0.5649
Neutral	0.6463	0.6309	0.4271	0.3212	0.3478
Mild swagger	0.6579	0.5619	0.4292	0.3545	0.2401
Extreme swagger	0.6498	0.5584	0.3982	0.2456	0.2438

Table C-6. Mean values of rated perceived femininity rated by male participants

	WHR				
Walk motion	0.5	0.6	0.7	0.8	0.9
Extreme sway	0.8149	0.7419	0.6464	0.6124	0.5758
Mild sway	0.7330	0.7003	0.6115	0.5469	0.5540
Neutral	0.6001	0.5264	0.3829	0.2450	0.2848
Mild swagger	0.6232	0.4840	0.3862	0.2517	0.2901
Extreme swagger	0.5977	0.5543	0.3733	0.2644	0.2708

Table C-7. Mean values of rated perceived attractiveness rated by female participants

	WHR				
Walk motion	0.5	0.6	0.7	0.8	0.9
Extreme sway	0.5115	0.4770	0.3318	0.1699	0.1514
Mild sway	0.4959	0.5284	0.3039	0.2253	0.1622
Neutral	0.4796	0.5270	0.4622	0.4259	0.1921
Mild swagger	0.5102	0.4941	0.4745	0.4287	0.2809
Extreme swagger	0.5199	0.4762	0.4698	0.4267	0.2900

Table C-8. Mean values of rated perceived attractiveness rated by male participants

	WHR				
Walk motion	0.5	0.6	0.7	0.8	0.9
Extreme sway	0.6029	0.5074	0.3483	0.1406	0.1175
Mild sway	0.5707	0.5156	0.2638	0.1855	0.1343
Neutral	0.5024	0.4857	0.3560	0.2925	0.1442
Mild swagger	0.5210	0.4249	0.3763	0.2937	0.2012
Extreme swagger	0.5409	0.4758	0.3701	0.2888	0.2167

APPENDIX D

DATA OF EXPERIMENT

The following tables include information on ratings of sex, masculinity, femininity and attractiveness by 366 research participants. All data are sorted according to WHR and walk motions of the figures. Five different walk motions are denoted as

A: Extreme sway

B: Mild sway

C: Neutral

D: Mild swagger

E: Extreme swagger

The rating scale used for rated perceived sex ranges from 0 and 100. A scale value of 0 indicates that the perceived sex is male, while a scale value of 100 indicates that the perceived sex is female. For rated perceived masculinity, femininity and attractiveness, the scales ranged from 0 to 100. Ses# indicates the session number. There were six sessions. Stu# indicates the student number in each session. A data of a individual who was excluded from the analysis is located the bottom of each tables (session #: 6; student #: 27).

Table D-1. Data of rated perceived sex

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity*	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1	1	19	f	Caucasian	0	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
1	2	18	f	Caucasian	100	100	0	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	---	0	0	---	0	0	0
1	3	20	f	Asian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	100	0	0	0	0	0	0
1	4	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
1	5	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	100	100	0	0	0	0	0	0	0	0	0	0
1	6	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
1	7	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0
1	8	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
1	9	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	100	0	0	0	0	0	0	0	0	0	0	0
1	10	19	m	Caucasian	100	100	100	100	100	100	0	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
1	11	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0
1	12	20	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
1	13	20	f	Caucasian	100	100	---	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
1	14	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
1	15	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	100	0	0	0	0	0
1	16	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	17	22	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0
1	18	24	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0
1	19	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	100	100	0	0	0	0	0	0	0	0	0	0
1	20	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0
1	21	21	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
1	22	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0
1	23	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0
1	24	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0
1	25	19	m	Caucasian	100	100	100	100	100	100	0	100	100	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
1	26	18	m	Asian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	---	0
1	27	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
1	28	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
1	29	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
1	30	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0
1	31	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0
1	32	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0

Table D-1. Continued

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1	33	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
1	34	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
1	35	19	f	Hispanic	100	100	100	100	100	100	100	100	100	0	0	100	100	0	100	100	0	0	0	0	0	0	0	0	0
1	36	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0
1	37	18	m	Black	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
1	38	19	m	Caucasian	100	100	100	100	100	0	100	100	100	0	100	100	0	100	100	0	0	0	100	100	0	0	0	0	100
1	39	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	40	19	m	Hispanic	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	41	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
1	42	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
1	43	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
1	44	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
1	45	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0
1	46	19	f	Caucasian	100	100	100	100	100	100	0	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
1	47	19	m	Caucasian	100	100	100	100	100	100	0	0	100	100	100	0	0	100	100	0	0	100	100	100	0	0	100	100	100
1	48	18	f	Hispanic	100	100	100	---	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
1	49	18	m	Hispanic	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0
1	50	19	f	Caucasian	100	100	100	100	100	---	---	---	100	---	---	---	---	100	---	100	0	---	---	0	0	0	0	0	0	0
1	51	20	m	Hispanic	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
1	52	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	0
1	53	18	f	Hispanic	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
1	54	18	f	Other	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
1	55	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	0
1	56	20	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	100	100	0	0	0	0	0	0	0	0	0	0
1	57	18	m	Other	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	58	18	f	Caucasian	100	100	100	0	100	100	100	100	100	100	0	0	100	100	0	100	0	0	100	100	0	0	0	0	100
1	59	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
1	60	18	m	Hispanic	100	100	100	100	100	100	100	100	100	100	100	0	100	0	100	0	100	100	0	100	0	0	0	0	0
1	61	19	m	Hispanic	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
1	62	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	0
2	2	20	m	Caucasian	0	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0
2	3	21	m	Caucasian	100	100	100	100	100	0	100	0	100	100	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0

Table D-1. Continued

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
2	4	18	f	Caucasian	100	100	0	100	---	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0
2	5	18	f	Hispanic	100	100	100	100	100	100	100	0	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	100
2	6	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0
2	7	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
2	8	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	---	0	0	0	0	0	0	0	0
2	9	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0
2	10	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	100
2	11	19	m	Caucasian	100	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	0	0	0	100	0	0	0	0	100
2	12	19	m	Caucasian	100	100	100	100	100	0	100	100	100	100	0	100	0	100	100	0	0	0	100	0	0	0	0	0	0
2	13	18	f	Caucasian	100	100	100	100	100	0	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
2	14	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
2	15	20	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
2	16	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	100	100	0	0	0	100	100	100	0	0	100	100
2	17	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	0
2	18	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	19	19	m	Caucasian	100	100	100	100	100	100	0	100	100	100	100	100	100	100	100	0	0	0	100	100	0	100	0	0	0
2	20	20	m	Caucasian	100	100	100	0	0	100	0	100	100	100	0	0	0	0	100	100	0	0	100	0	0	100	0	100	0
2	21	19	m	Black	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0
2	22	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0
2	23	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	24	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	100	0	0	0	0	0	0	0
2	25	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	0
2	26	18	f	Black	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
2	27	20	f	Caucasian	100	100	100	100	100	100	100	0	0	100	100	100	100	---	100	0	0	100	0	0	0	0	0	0	0
2	28	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
2	29	21	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	100	0	0	0
2	30	19	f	Caucasian	100	100	100	100	100	0	100	100	100	100	100	100	100	0	0	0	0	0	0	100	0	0	0	0	0
2	31	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0
3	1	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	100	100	0	0	0	0	0
3	2	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	100	0	0	0
3	3	19	m	Asian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
3	4	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
3	5	21	f	Caucasian	0	100	0	100	100	100	0	0	100	100	100	0	0	100	100	0	0	0	0	100	0	0	0	100	100

Table D-1. Continued

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
3	6	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	100	100	0	0	0	0	0	0	0	100	100	0
3	7	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	0
3	8	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
3	9	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
3	10	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	100	0	100	0	0	0	0	0	0	0	0	0	0
3	11	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
3	12	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
3	13	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0
3	14	19	m	Caucasian	0	100	100	0	100	100	0	0	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0
3	15	20	m	Hispanic	100	100	100	100	100	100	100	100	100	100	0	100	100	100	0	0	0	0	0	0	0	0	0	0	0
3	16	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	---	0	100
3	17	22	m	Caucasian	100	100	100	100	100	100	0	100	100	0	100	0	0	100	100	0	0	0	0	0	0	0	0	0	0
3	18	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	100	0	0	0	0	0
3	19	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	100	100	100	0	0	0	0	100	0	0	0	0	0
3	20	17	f	Hispanic	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
3	21	19	f	Caucasian	100	100	100	100	100	100	100	100	100	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
3	22	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	23	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0
3	24	19	m	Caucasian	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	25	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0
3	26	18	f	Caucasian	0	100	100	100	100	0	100	100	100	100	0	0	0	100	100	0	0	100	0	0	0	0	0	0	0
3	27	18	f	Caucasian	0	100	100	100	100	100	0	0	100	100	0	100	0	100	100	100	100	100	100	100	0	0	0	100	100
3	28	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	100	100	0	0	0	0	0	0	0	0	0	0
3	29	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	100	0	0	0	0	0	0
3	30	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
3	31	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
3	32	17	f	Caucasian	100	100	---	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
3	33	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
3	34	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	100	0	0	0	0	0	0	0	0	100
3	35	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	100	0	0	0	0	0	0
3	36	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	37	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
3	38	17	m	Hispanic	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0

Table D-1. Continued

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
3	39	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0
3	40	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
3	41	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	42	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	100	0	0	0	0	0	0
3	43	20	m	Hispanic	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
3	44	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	100	100	100	0	0	0	0	0	0	0	0	0	0
3	45	20	m	Caucasian	100	100	100	100	100	100	100	100	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
4	1	22	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	2	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	3	20	m	Black	100	100	100	100	100	100	100	100	0	100	100	---	0	100	100	0	0	0	0	100	0	0	100	0	0
4	4	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
4	5	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
4	6	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0
4	7	21	f	Caucasian	100	100	100	100	0	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
4	8	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	9	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0
4	10	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
4	11	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	0	0	0	0	0	0	0	0	0	0	0
4	12	19	f	Caucasian	100	0	100	100	100	100	100	100	100	100	100	0	100	0	100	0	0	0	0	0	0	0	0	0	0
4	13	21	m	Hispanic	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	100	0	100	100	0	0	0	0	0
4	14	20	f	Caucasian	100	100	100	100	100	100	100	---	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
4	15	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	16	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	17	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	100	100	0	0	0	0	0	0	0	0	0	0
4	18	20	f	Caucasian	100	100	0	100	0	100	100	0	0	100	100	100	0	0	100	0	100	100	0	0	0	100	0	100	0
4	19	20	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	20	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	100	0	0	0	0	0	0	0	0	0
4	21	20	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	22	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	23	20	m	Caucasian	100	100	0	0	100	100	0	100	100	100	100	100	0	100	100	100	0	0	0	0	0	100	0	100	0
4	24	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	25	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0
4	26	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0

Table D-1. Continued

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	27	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0
4	28	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	100	100	0	0	0	0	0	0	0	0	0	0
4	29	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	30	18	m	Asian	100	100	100	100	100	100	100	100	100	100	0	0	100	100	100	0	0	0	0	100	100	---	---	---	100
4	31	19	f	Caucasian	100	100	100	100	100	100	100	100	0	100	0	0	100	0	100	0	100	0	0	0	0	0	0	0	0
4	32	18	f	Other	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0
4	33	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	34	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0
4	35	18	f	Caucasian	0	100	100	100	100	100	100	0	100	100	0	100	0	100	100	0	0	100	0	0	0	0	0	0	0
4	36	19	m	Egyptian	100	100	100	100	100	100	100	100	100	100	0	0	100	100	100	0	0	0	0	0	0	0	0	0	0
4	37	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
4	38	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	39	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	40	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
4	41	18	f	Caucasian	100	0	100	100	100	100	100	100	100	100	100	100	0	0	100	0	100	0	0	0	0	0	0	0	0
4	42	20	f	Caucasian	0	100	100	100	100	100	100	0	100	100	0	0	0	100	0	100	0	0	0	0	0	0	0	0	0
4	43	22	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	44	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	45	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	100	0	100	0	0	0	0	0	0	0	0	0	0
4	46	19	f	Caucasian	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	47	19	m	Caucasian	100	0	100	100	100	100	0	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	48	19	m	---	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
4	49	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
4	50	19	m	Caucasian	100	100	100	100	100	0	0	0	100	100	0	100	0	0	100	0	0	100	0	0	100	0	0	0	100
4	51	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	---	0
4	52	18	f	Caucasian	100	100	100	---	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	100	100	0	100	0
4	53	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	54	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	55	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	100	0	0	0	0	0
4	56	21	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	57	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	58	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	59	18	m	Asian	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	100	0	0	0	0	0

Table D-1. Continued

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	60	18	f	Caucasian	100	100	100	0	0	100	0	100	100	100	100	100	100	100	0	100	0	0	100	0	0	100	100	0	0
4	61	21	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	100	0	100	0	0	0	0	0	0	0	0	0	0
4	62	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
4	63	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
4	64	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	100	0	0	0	0	0	0
4	65	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
4	66	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	67	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	68	18	m	Egyptian	100	100	100	100	100	100	100	100	100	100	100	0	0	100	100	0	0	0	0	100	0	0	0	0	0
4	69	20	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0
4	70	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
4	71	18	m	Hispanic	0	0	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	100	0	0	0	0	0	100
4	72	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
4	73	21	m	Other	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0
4	74	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	75	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
4	76	21	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	77	20	m	Caucasian	0	0	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	78	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	79	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
4	80	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0
4	81	18	f	Caucasian	100	100	0	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	0	0	0
4	82	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	100
4	83	18	m	Asian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	84	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	85	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	86	21	m	Caucasian	100	---	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	100
4	87	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	88	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	89	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0
4	90	20	m	Hispanic	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	91	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
4	92	22	m	Caucasian	100	100	100	100	100	100	100	100	100	---	0	100	0	100	100	0	100	100	0	0	0	0	0	0	0

Table D-1. Continued

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	93	20	m	American	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	---	0	0	0	0	0	0	0
4	94	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
4	95	20	f	Caucasian	100	0	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	96	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	100	100	0	0	0	0	100	0	0	0	0	0
4	97	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
4	98	20	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
4	99	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0
4	100	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
4	101	18	f	Hispanic	100	100	100	100	100	100	100	100	100	100	100	0	100	100	100	0	0	0	0	0	0	0	0	0	0
4	102	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
5	1	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
5	2	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0
5	3	18	f	Caucasian	100	100	100	100	100	100	100	100	100	0	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0
5	4	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
5	5	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
5	6	19	f	Black	100	100	100	100	100	100	100	100	100	100	---	---	100	0	100	0	---	0	0	0	0	0	0	0	0
5	7	19	m	Caucasian	100	100	100	100	100	100	0	100	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	100	100
5	8	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0
5	9	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
5	10	19	f	Caucasian	100	100	100	100	100	100	100	100	0	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0
5	11	18	f	Caucasian	100	100	100	100	100	100	100	---	100	100	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0
5	12	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0
5	13	21	f	Asian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
5	14	22	m	Hispanic	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
5	15	19	f	Black	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0
5	16	19	f	Asian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	100	0	100	0	0	0	0	0
5	17	19	f	Caucasian	100	100	100	0	100	100	100	100	100	100	100	0	0	100	100	0	100	0	0	0	0	0	0	0	0
5	18	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
5	19	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	---	0	0	0	0	0
5	20	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
5	21	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
5	22	21	f	Hispanic	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
5	23	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0

Table D-1. Continued

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
5	24	21	m	Caucasian	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	25	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0
5	26	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0
5	27	19	f	Caucasian	100	100	100	100	100	100	100	100	100	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
5	28	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0
5	29	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
5	30	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0
5	31	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
5	32	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	33	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0
5	34	19	f	Hispanic	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	35	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	100	0	0	0
5	36	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	100	100	0	0	0	0	0	0	0	0	0	0
5	37	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
5	38	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
5	39	20	m	Hispanic	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	100	0	0	0	100	0
5	40	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	0
5	41	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	42	18	f	Caucasian	0	100	100	100	100	100	100	100	100	0	100	0	0	100	100	0	0	0	0	0	0	0	0	0	0
5	43	22	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	44	19	f	Caucasian	100	---	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	100	0	0
5	45	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
5	46	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
5	47	20	m	Asian	100	100	100	100	100	100	100	100	100	0	0	0	100	100	100	0	0	0	0	0	0	0	0	0	0
5	48	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
5	49	20	m	Caucasian	0	100	0	100	100	100	0	0	100	100	0	0	0	100	100	0	0	0	100	100	0	0	0	100	100
5	50	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	100	0	0	0	0	0
5	51	20	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	100	0	0	0	100	100
5	52	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0
5	53	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	100	0	100	0	100	0	0	0	0	0	0	0	0
5	54	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	55	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0
5	56	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	0

Table D-1. Continued

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
5	61	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	100	0	0	0	0	0	0
5	62	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
5	63	19	m	Caucasian	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
5	64	19	f	Hispanic	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0
5	65	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
5	66	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
5	67	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
5	68	18	m	Caucasian	0	100	100	100	100	100	0	0	100	0	0	0	0	100	0	0	0	0	100	100	0	0	0	0	0
6	1	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
6	2	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
6	3	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
6	4	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0
6	5	19	m	Hispanic	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
6	6	18	m	Black	---	100	100	0	100	100	0	100	100	100	100	100	0	100	100	100	0	0	0	0	0	0	0	100	0
6	7	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
6	8	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0
6	9	19	m	Caucasian	100	100	100	100	0	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0
6	10	18	f	Caucasian	100	100	100	100	100	100	100	0	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0
6	11	18	f	Hispanic	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	0
6	12	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	100	0	100	0
6	13	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	0	0	0	0	0	0	0	0	0	0	0
6	14	18	f	Other	100	100	100	100	100	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0
6	15	21	m	Hispanic	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0	0	0
6	16	18	m	Caucasian	---	100	0	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	100	0	100	0	0	0
6	17	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
6	18	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0
6	19	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	20	18	f	Caucasian	100	100	100	0	100	100	0	100	100	100	100	100	100	0	100	100	0	0	100	100	0	0	0	100	0
6	21	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	100
6	22	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
6	23	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0
6	24	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	100	100	100	0	0	0	0	0
6	25	18	m	Asian	100	100	100	100	0	100	100	100	100	100	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0

Table D-1. Continued

					Rated perceived sex																					
					WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	Age	Sex	Ethnicity	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
6	26	21	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
6	28	20	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	100	0	0	0	0	0
6	29	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0
6	30	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
6	31	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
6	32	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	100	0	100	0	0	0
6	33	17	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	0	0	0	0	0	0	0	0	0
6	34	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0
6	35	18	m	Caucasian	100	0	100	0	100	100	0	100	100	100	100	0	100	100	0	100	0	0	100	100	100	0	0	0	100
6	36	18	f	Caucasian	100	100	0	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
6	37	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	0	100	0	0	0	0	0
6	38	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0
6	39	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	40	18	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0
6	41	18	f	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	42	18	f	Other	100	100	100	100	100	100	100	100	100	100	100	0	100	0	100	0	100	100	100	100	0	0	0	0	0
6	43	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	0	0	0	0	0	0	0	0
6	44	19	m	Caucasian	100	100	100	0	100	100	0	100	100	100	0	100	0	100	100	100	0	0	0	0	0	0	0	100	0
6	45	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	46	20	m	Hispanic	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0
6	47	19	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	0	0	0	0	0	0	0	0	0
6	48	20	m	Caucasian	100	100	100	0	100	100	100	0	100	100	0	0	0	100	100	0	0	0	---	0	100	0	0	0	0
6	49	18	m	Caucasian	0	0	100	0	100	100	0	100	100	100	100	100	0	0	100	100	100	0	---	0	0	100	0	100	0
6	50	21	m	Caucasian	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	51	21	m	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100	0	0	0	100	100	0	0	0	0	0
6	52	19	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0	0	0
6	53	20	m	Asian	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0
6	54	20	f	Caucasian	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0
6	55	20	m	Hispanic	100	100	100	100	100	100	100	100	100	100	0	100	0	0	100	0	0	0	0	100	100	0	100	0	0
6	56	26	m	Hawaiian	0	0	0	0	0	100	0	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	100
6	57	18	f	Hispanic	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0	0	0	0	0	0
6	58	18	f	Caucasian	100	100	100	100	0	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0
6	27	19	m	Other	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0	0	0	0

Table D-2. Data of rated perceived masculinity

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1	1	49	74	47	60	39	101	71	50	68	17	91	71	72	74	49	97	81	79	35	20	90	75	65	28	53
1	2	4	5	80	28	6	43	2	65	98	65	93	72	91	96	63	96	94	65	3	61	10	---	39	33	8
1	3	43	53	44	6	35	59	11	40	4	57	85	82	72	71	51	69	35	33	57	30	41	21	9	4	6
1	4	17	2	17	6	3	5	19	16	17	5	45	45	47	27	43	69	61	36	39	27	65	49	41	39	28
1	5	19	5	14	11	11	4	6	28	8	6	93	91	71	8	6	73	85	96	22	69	91	92	84	83	87
1	6	4	3	23	15	50	48	9	35	9	72	58	61	69	26	66	67	54	71	55	24	50	3	34	52	10
1	7	47	59	39	9	76	66	15	70	4	8	53	67	83	75	0	68	61	91	17	3	40	6	17	2	2
1	8	2	17	36	35	11	15	57	30	25	65	71	91	90	40	61	79	74	80	71	68	64	90	84	61	83
1	9	90	80	78	5	8	93	81	87	11	6	93	87	5	27	2	50	87	14	0	2	71	52	66	2	0
1	10	20	91	69	20	2	64	28	57	3	31	12	51	74	4	29	62	47	94	50	0	54	20	82	34	20
1	11	48	79	37	58	3	101	71	75	71	27	97	99	77	49	95	102	98	86	88	4	100	83	63	52	27
1	12	3	15	9	4	3	20	6	6	3	3	41	46	19	6	54	53	78	81	50	15	29	57	67	15	20
1	13	76	66	11	31	15	77	65	67	17	74	98	90	85	96	43	83	67	65	46	5	94	80	64	11	20
1	14	13	45	46	3	6	50	56	13	2	32	64	42	31	68	41	39	99	73	25	20	35	36	49	47	11
1	15	13	8	9	5	6	16	24	8	13	5	36	39	31	9	7	31	33	25	31	35	78	10	31	25	23
1	16	43	58	19	9	20	61	17	33	17	19	90	88	67	28	46	69	87	88	84	26	65	88	67	31	35
1	17	55	60	80	28	20	20	50	17	52	28	91	88	58	9	51	54	72	80	48	2	78	85	43	25	62
1	18	60	43	39	25	35	29	47	50	31	30	56	63	85	50	57	77	60	51	36	55	71	55	49	43	47
1	19	3	1	3	2	0	5	6	2	9	0	19	85	90	6	9	75	69	50	36	9	48	50	15	9	22
1	20	13	9	73	8	9	29	57	62	35	36	72	65	68	44	58	66	72	76	76	58	65	72	72	76	72
1	21	19	6	38	4	8	17	55	17	8	14	38	36	77	49	33	68	74	59	71	31	53	79	79	23	30
1	22	54	2	2	14	17	34	11	6	63	54	72	2	1	66	2	44	52	72	83	47	65	88	85	7	93
1	23	23	22	17	58	21	32	63	39	59	63	60	30	43	47	52	49	46	47	39	61	86	46	57	51	35
1	24	17	2	5	4	13	2	46	2	28	26	72	74	35	22	26	10	14	8	71	5	57	40	39	16	51
1	25	24	57	46	22	24	54	50	41	50	47	66	60	66	34	40	77	47	77	24	15	62	29	65	34	30
1	26	91	98	100	20	29	66	98	99	44	35	99	96	94	76	60	69	72	94	61	67	85	9	97	89	71
1	27	31	30	79	2	2	75	78	2	3	48	91	68	51	46	15	70	76	3	47	11	22	18	100	30	11
1	28	66	89	35	42	60	17	13	5	36	9	60	72	55	55	31	87	70	84	41	35	85	69	50	44	55
1	29	61	1	1	1	2	1	33	1	13	63	50	53	52	17	87	79	102	90	11	9	90	83	60	29	4
1	30	24	33	58	60	20	85	80	88	61	13	31	83	34	31	38	44	81	72	57	48	35	91	17	60	17
1	31	16	2	2	6	7	20	8	5	2	2	27	55	16	54	78	57	33	46	55	46	50	39	55	66	42
1	32	39	39	57	9	5	34	40	46	6	31	43	46	34	12	3	40	58	59	31	12	34	28	20	9	9

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C*	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1	33	24	3	50	2	2	7	28	31	30	51	41	57	79	68	52	71	61	50	33	13	46	43	48	19	11
1	34	50	76	47	20	41	70	66	52	35	23	50	72	58	20	35	88	69	61	41	11	70	44	69	39	33
1	35	68	78	38	9	5	19	28	35	15	15	77	90	28	16	82	85	80	74	20	8	57	94	73	19	24
1	36	22	2	69	19	25	5	8	27	9	39	61	53	55	65	83	79	65	65	69	80	52	57	27	56	46
1	37	31	59	60	13	13	80	54	11	31	27	44	64	48	44	17	60	46	46	32	16	65	14	54	19	28
1	38	5	50	66	52	35	88	25	30	2	2	54	13	64	11	9	66	88	76	9	25	20	2	2	7	2
1	39	80	16	69	5	3	17	84	77	13	8	91	90	91	11	8	76	91	82	20	13	84	94	95	63	11
1	40	84	83	16	18	4	83	48	61	13	13	50	80	91	17	9	68	84	86	25	11	96	88	94	39	14
1	41	8	17	9	10	10	9	9	16	22	11	22	14	39	24	22	80	66	79	34	25	77	54	65	16	28
1	42	20	9	15	6	4	30	11	13	17	11	41	35	79	35	13	61	93	80	68	58	77	84	91	59	65
1	43	10	57	9	2	0	50	3	50	2	0	72	54	5	2	2	16	68	73	2	2	32	65	71	10	0
1	44	20	18	9	24	19	64	69	20	55	23	68	72	49	43	69	41	81	77	43	26	50	73	27	65	24
1	45	0	16	0	0	0	9	40	28	9	0	75	6	64	40	13	76	90	76	72	53	51	74	28	32	95
1	46	6	9	3	9	13	2	90	43	27	24	64	83	80	77	29	97	80	81	83	64	83	61	77	73	48
1	47	33	50	75	11	13	50	89	94	14	14	47	94	101	13	14	71	49	6	17	3	57	---	5	25	5
1	48	26	24	70	3	2	17	58	6	51	30	77	55	39	73	30	77	64	71	20	39	71	30	69	26	13
1	49	39	89	83	9	2	88	84	75	17	9	87	92	57	6	4	13	72	57	14	2	55	74	42	32	2
1	50	8	72	55	3	54	51	83	49	2	33	76	45	49	46	39	20	94	46	68	87	58	44	83	13	49
1	51	17	22	67	0	4	14	46	72	11	8	89	91	83	49	8	90	95	87	50	34	72	102	83	27	19
1	52	30	35	57	3	4	20	71	64	14	50	91	71	80	3	16	67	87	83	8	1	69	77	40	16	13
1	53	30	9	33	11	12	36	28	28	15	20	34	38	41	42	30	78	60	63	56	25	64	71	65	75	58
1	54	8	6	19	50	6	47	13	22	76	28	19	15	23	30	5	39	4	3	3	3	16	39	24	13	3
1	55	78	77	68	21	11	17	30	83	4	8	50	86	33	3	9	39	31	24	17	2	92	14	13	20	6
1	56	3	16	11	6	24	47	20	20	45	50	38	44	42	49	24	27	54	46	54	11	17	11	13	16	9
1	57	2	12	4	2	2	72	2	5	9	77	54	80	79	76	52	69	85	76	87	83	65	81	72	79	87
1	58	66	6	14	51	17	5	31	43	31	55	82	83	28	22	60	14	35	50	62	61	15	89	76	81	70
1	59	80	80	63	17	98	82	69	54	17	53	71	65	72	15	6	79	58	80	24	66	85	82	83	50	28
1	60	45	13	35	59	48	31	69	41	100	59	71	58	68	36	72	63	97	76	57	71	56	49	12	7	43
1	61	72	53	72	47	50	62	44	66	39	60	64	76	66	39	35	80	65	24	57	49	70	57	79	41	20
1	62	57	61	53	95	2	42	57	85	64	47	81	82	35	14	8	4	56	54	41	2	2	39	3	7	42
2	1	47	43	57	43	38	47	82	54	15	54	65	70	80	68	35	46	47	36	17	17	58	52	3	16	49
2	2	52	69	72	19	27	72	53	79	25	5	41	37	64	47	44	99	81	58	71	11	65	37	15	28	28
2	3	31	27	39	3	3	33	51	31	7	2	76	55	91	98	24	98	99	93	98	30	99	100	75	5	49

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
2	4	79	26	25	35	8	61	49	76	3	3	78	50	47	30	6	80	60	77	42	32	82	75	47	28	9
2	5	22	8	12	3	8	6	9	50	22	6	39	13	26	8	3	60	67	39	13	7	43	38	21	17	30
2	6	7	8	9	2	2	20	3	27	36	33	52	54	50	49	48	52	68	57	80	54	54	60	77	50	66
2	7	12	27	17	6	10	16	19	17	7	22	49	32	24	47	25	69	81	65	38	35	75	50	37	17	32
2	8	66	53	39	24	19	54	31	55	38	28	73	56	35	47	43	63	88	68	47	27	65	52	38	69	61
2	9	66	52	80	13	2	69	61	54	8	4	52	45	63	30	6	82	33	57	22	13	89	54	60	9	11
2	10	32	38	35	33	8	42	44	47	27	7	43	35	65	35	39	41	60	65	49	44	40	38	28	35	33
2	11	79	71	20	71	2	60	46	55	10	0	91	65	79	65	13	25	85	47	25	20	99	82	96	27	49
2	12	28	43	47	2	2	44	68	55	27	5	83	41	99	50	16	76	94	91	74	17	81	72	72	66	58
2	13	35	2	16	2	3	38	38	83	2	4	83	47	83	33	44	94	65	79	43	3	66	87	46	9	50
2	14	25	61	48	5	1	55	46	38	27	13	44	38	50	5	63	98	87	88	63	24	75	92	79	61	74
2	15	15	5	3	2	0	2	0	56	17	9	16	49	51	52	10	60	74	98	80	31	3	39	17	27	9
2	16	91	70	54	2	2	85	11	83	2	20	82	85	42	49	91	87	97	80	26	85	76	74	88	38	27
2	17	9	45	47	61	78	29	30	22	76	83	6	12	36	58	65	31	3	0	69	65	6	24	62	67	65
2	18	42	26	21	2	2	59	39	80	9	7	80	90	79	22	16	84	67	74	46	9	71	49	76	25	35
2	19	32	17	16	17	20	43	33	48	37	22	54	22	11	55	63	57	21	65	55	23	51	7	12	9	20
2	20	30	43	39	11	50	35	17	55	35	5	35	36	5	13	44	4	31	47	50	24	58	40	8	48	8
2	21	82	71	47	21	5	9	59	25	2	1	85	65	50	31	6	90	76	99	12	6	89	95	33	2	20
2	22	83	16	78	13	0	74	52	50	0	14	49	50	50	0	0	0	100	100	52	49	100	77	80	51	47
2	23	13	8	2	2	17	54	100	68	4	13	93	100	100	0	0	100	77	79	0	0	76	57	16	0	7
2	24	17	26	16	10	9	35	73	35	13	3	60	33	65	52	33	68	60	35	30	36	36	49	39	50	26
2	25	76	50	49	2	1	50	31	54	20	1	43	53	59	2	6	22	41	35	4	2	49	54	6	7	0
2	26	17	19	10	5	2	19	9	22	11	9	24	49	19	21	13	80	64	70	24	50	73	79	66	37	61
2	27	11	9	11	57	9	13	51	83	52	8	19	17	62	49	76	83	81	50	94	57	72	82	82	75	71
2	28	5	13	26	3	5	71	2	33	22	3	82	52	35	38	57	91	83	98	76	63	96	83	89	63	71
2	29	92	84	79	2	5	64	82	69	2	3	91	94	96	22	3	77	96	88	1	30	67	71	52	4	37
2	30	3	6	9	6	2	47	3	61	18	5	71	5	20	24	44	80	65	54	61	70	55	52	49	47	24
2	31	93	94	87	5	80	94	83	81	72	44	64	65	9	18	55	85	4	58	28	12	96	9	61	45	17
3	1	32	13	17	16	85	43	25	44	31	42	37	45	41	17	43	57	48	57	38	28	51	47	46	46	35
3	2	22	11	17	3	5	60	63	14	30	10	54	8	52	41	17	43	48	13	48	42	41	10	85	9	87
3	3	74	77	79	2	1	87	63	83	80	73	82	81	85	17	79	77	92	82	24	19	90	23	88	83	80
3	4	93	64	94	11	4	90	92	68	10	22	100	94	88	35	27	91	98	76	41	6	98	69	76	25	27
3	5	---	---	13	---	72	---	76	32	76	---	---	101	84	---	---	61	61	59	69	---	70	51	84	---	30

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
3	6	36	3	24	35	4	68	73	71	85	52	76	88	76	54	31	45	5	66	14	5	11	5	14	23	3
3	7	42	47	9	4	2	17	26	41	6	41	35	34	55	52	68	65	71	83	67	13	24	57	74	28	14
3	8	58	69	38	13	25	66	47	51	52	39	50	61	57	46	46	69	68	48	33	17	49	59	43	35	27
3	9	60	5	17	22	10	58	88	59	13	55	80	67	63	28	20	69	74	80	62	31	51	77	72	60	30
3	10	6	6	21	12	6	8	28	14	33	24	49	38	76	69	29	93	83	90	49	61	93	91	80	74	46
3	11	0	6	0	0	9	0	14	6	5	6	31	44	59	43	14	70	61	48	41	50	57	28	31	19	30
3	12	2	6	2	5	2	6	25	5	9	2	35	13	48	16	58	42	64	59	14	5	29	46	25	2	4
3	13	28	25	13	16	17	47	12	35	9	22	46	57	60	27	6	83	61	75	29	55	76	84	63	28	46
3	14	62	65	2	69	30	28	15	15	39	61	63	54	61	8	12	54	48	82	95	11	61	83	31	60	54
3	15	14	15	13	12	7	25	54	31	13	10	45	40	55	59	62	84	43	60	20	35	80	72	49	32	38
3	16	9	27	16	11	12	27	31	13	9	11	50	22	13	49	39	57	69	58	61	50	49	31	47	49	33
3	17	57	55	31	54	26	53	57	54	49	33	46	65	49	50	57	73	58	41	34	44	69	65	63	39	50
3	18	6	7	6	4	11	16	53	65	6	22	47	84	14	27	23	65	74	21	3	68	50	30	52	23	4
3	19	83	11	80	91	23	51	27	13	6	29	27	86	8	84	13	51	28	58	56	38	9	61	54	39	7
3	20	46	3	31	6	30	41	35	46	6	28	22	65	63	31	5	80	50	79	30	14	94	83	28	15	44
3	21	39	63	39	0	0	78	92	50	2	17	72	77	81	17	56	46	72	90	25	42	80	90	83	20	7
3	22	69	62	75	38	45	73	57	50	72	69	76	72	72	20	82	30	63	71	79	63	24	80	50	58	64
3	23	34	2	24	3	2	89	42	32	43	46	91	89	96	28	87	61	43	91	42	5	94	91	100	90	13
3	24	4	8	39	3	6	53	43	13	4	5	83	75	80	24	5	83	76	87	20	8	83	57	20	5	59
3	25	32	10	50	0	0	82	7	48	0	0	28	69	69	46	13	98	96	79	0	77	90	99	98	0	0
3	26	76	66	55	4	11	68	66	61	34	68	55	67	49	63	33	58	55	71	37	38	55	80	70	63	48
3	27	48	46	43	21	12	47	46	47	17	6	45	60	49	13	2	16	14	43	39	5	35	55	11	2	29
3	28	27	13	50	20	7	47	69	52	28	61	80	70	72	56	20	57	54	85	76	51	83	7	72	79	48
3	29	46	69	65	48	28	60	68	52	46	14	69	60	70	50	36	52	44	69	46	19	65	65	65	22	28
3	30	61	33	28	44	11	57	36	19	11	13	18	44	56	66	43	57	87	61	13	5	71	47	67	58	30
3	31	26	6	31	16	17	44	49	91	31	39	74	76	61	63	66	55	71	68	61	26	28	68	71	25	46
3	32	47	4	20	4	6	69	58	14	25	72	83	35	67	36	14	51	65	77	58	17	44	43	76	55	15
3	33	27	20	9	0	27	0	17	0	17	52	22	12	88	2	11	101	43	83	68	55	101	2	60	11	61
3	34	44	31	19	2	5	20	33	28	44	2	47	37	76	14	4	22	24	82	22	15	20	2	28	10	5
3	35	0	17	20	0	0	2	9	0	2	20	41	0	2	46	22	41	80	47	32	65	50	60	0	24	56
3	36	77	21	43	6	50	69	49	30	53	3	74	90	79	14	65	98	61	93	65	28	93	49	83	74	44
3	37	8	12	5	0	0	28	19	40	27	67	91	83	54	68	12	90	77	79	71	60	80	91	80	73	60
3	38	14	0	14	16	21	3	19	53	35	41	57	50	33	38	2	22	69	46	72	38	50	76	61	61	57

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C*	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
3	39	69	2	67	2	6	2	79	2	72	39	44	65	97	6	63	66	39	30	6	0	77	51	92	2	51
3	40	31	94	90	0	2	90	51	87	13	3	86	93	96	27	32	87	69	82	2	17	5	78	98	13	29
3	41	58	80	25	45	36	56	79	68	33	30	62	74	58	57	65	71	72	52	65	45	82	91	52	22	28
3	42	13	41	5	9	2	14	46	5	2	2	31	9	9	10	4	17	55	37	31	36	43	63	25	43	9
3	43	21	3	43	35	6	24	35	17	24	33	44	62	52	22	34	57	72	79	44	28	61	90	49	42	28
3	44	69	65	0	35	82	87	20	46	9	90	54	6	36	19	77	30	54	33	11	4	98	35	98	50	28
3	45	6	41	57	55	12	47	36	57	9	52	58	39	45	50	45	53	22	57	27	30	46	77	77	42	18
4	1	49	40	28	24	9	50	52	39	9	30	60	25	53	53	69	67	87	71	20	78	70	69	61	20	83
4	2	3	48	61	16	18	24	63	13	34	7	18	32	36	9	27	50	58	72	18	5	20	43	41	28	24
4	3	69	---	52	---	---	30	10	6	---	---	20	102	96	---	---	79	---	102	26	---	102	91	4	72	---
4	4	19	49	33	9	17	46	35	22	25	29	50	55	48	39	24	72	44	55	81	48	92	52	68	40	60
4	5	59	57	63	27	17	94	57	70	33	9	45	88	69	53	36	80	91	62	69	33	36	61	65	58	29
4	6	25	41	34	24	14	21	19	15	10	52	81	72	71	31	54	91	90	79	32	20	63	87	72	61	19
4	7	39	19	16	83	0	78	38	77	0	2	102	102	87	62	6	87	49	52	8	16	6	20	0	0	10
4	8	30	51	48	3	8	66	61	60	5	5	65	79	69	50	47	74	60	76	49	39	89	72	80	36	29
4	9	35	52	28	44	12	41	55	19	35	39	53	44	58	38	26	80	46	43	38	9	29	64	72	57	14
4	10	63	61	61	58	3	76	66	60	41	9	87	72	76	36	84	72	83	76	54	32	76	57	75	12	36
4	11	78	29	44	24	9	6	38	93	3	2	99	77	47	21	54	102	102	98	54	5	85	76	96	10	12
4	12	0	0	0	0	0	59	68	54	0	6	6	10	0	0	17	92	5	86	10	0	93	102	50	0	0
4	13	74	12	17	2	0	69	49	83	2	8	28	11	62	57	34	43	28	59	4	35	62	56	20	7	30
4	14	64	9	52	3	3	46	46	46	11	9	44	36	46	8	17	36	6	49	38	1	16	15	6	1	7
4	15	27	19	25	24	17	40	32	20	16	68	35	25	28	17	13	75	68	65	57	39	77	54	55	54	67
4	16	32	20	21	57	10	50	63	67	42	41	31	32	30	61	57	30	30	80	20	12	65	33	11	18	54
4	17	27	12	13	6	6	65	90	23	18	17	46	75	73	57	15	60	53	74	3	8	55	4	5	3	35
4	18	---	40	42	---	69	58	6	33	37	43	32	---	---	42	10	41	---	6	31	46	52	---	11	---	20
4	19	72	88	53	6	1	72	63	63	1	2	96	99	50	7	6	93	96	91	4	1	100	96	76	24	14
4	20	35	43	71	17	49	35	57	63	56	25	64	58	57	52	25	65	58	64	28	25	50	46	45	30	46
4	21	53	13	41	13	24	31	69	24	30	17	69	58	73	63	28	63	75	77	61	49	49	46	53	41	52
4	22	3	21	14	16	6	21	25	27	13	12	38	28	28	20	17	29	30	43	16	26	28	24	20	12	14
4	23	4	7	33	24	16	15	54	24	9	6	55	44	25	47	20	13	41	46	2	16	48	13	38	17	28
4	24	54	79	85	68	41	72	66	85	43	46	86	89	53	44	39	68	48	54	25	4	31	52	29	31	3
4	25	77	57	72	34	39	7	82	65	9	10	68	28	74	9	6	65	76	67	24	6	46	65	69	47	12
4	26	2	9	17	25	2	21	74	61	5	6	68	69	72	70	13	88	63	73	16	17	47	81	39	3	42

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C*	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	27	54	31	20	51	9	10	71	29	43	14	63	88	67	66	79	88	81	87	69	44	86	73	56	20	79
4	28	31	33	32	9	20	33	28	41	27	9	31	67	40	35	30	39	50	66	29	33	65	33	23	29	50
4	29	33	28	31	54	9	24	32	39	49	6	82	55	77	48	80	87	76	86	67	14	47	71	88	57	2
4	30	5	2	8	5	7	16	10	30	13	5	83	41	61	12	6	7	79	35	9	13	3	2	2	2	2
4	31	43	57	37	14	21	62	71	54	24	59	65	71	47	43	23	58	86	99	57	50	88	55	54	48	65
4	32	17	13	13	17	17	46	13	28	3	3	50	31	31	17	2	49	43	43	2	5	38	27	21	3	39
4	33	4	5	4	3	3	6	6	8	8	5	29	6	9	9	24	17	14	17	8	7	9	9	8	5	6
4	34	17	11	13	8	3	8	19	13	24	5	21	39	28	5	27	54	36	3	28	2	17	43	20	11	13
4	35	63	59	102	98	29	101	99	86	14	18	66	98	87	63	71	91	100	68	25	2	21	2	44	2	2
4	36	5	14	9	3	2	64	55	23	1	1	57	10	65	41	43	61	65	86	68	28	96	57	64	54	62
4	37	47	34	20	31	35	58	25	63	67	25	17	46	31	52	60	64	57	76	27	29	63	38	28	4	25
4	38	63	17	39	35	5	46	67	52	47	54	78	69	57	72	86	91	78	100	76	49	94	78	82	13	16
4	39	52	39	60	33	24	81	76	69	17	27	85	69	52	27	28	63	82	75	45	20	67	69	55	60	10
4	40	46	57	61	9	5	81	74	65	23	28	52	69	81	31	6	86	77	87	69	16	68	69	22	18	5
4	41	72	77	79	52	25	49	66	74	27	46	66	71	72	25	62	74	83	28	71	11	34	82	43	20	39
4	42	71	53	69	26	22	51	44	86	39	36	69	90	31	39	43	28	71	58	58	55	39	76	76	38	31
4	43	77	82	84	68	80	57	69	61	27	34	83	51	66	16	62	66	89	48	41	8	54	48	11	20	29
4	44	19	61	16	21	8	13	41	68	0	24	52	7	48	77	16	65	66	89	37	55	33	38	26	9	65
4	45	93	28	13	5	5	16	30	26	28	6	21	98	17	6	23	68	82	100	37	2	79	28	3	17	5
4	46	42	68	69	16	18	87	75	67	87	85	83	83	57	75	64	73	80	76	57	57	77	39	65	43	74
4	47	80	64	49	98	60	63	72	76	98	43	76	83	87	2	2	98	53	80	2	2	61	96	2	81	49
4	48	62	63	60	27	5	54	28	54	52	24	63	35	54	46	7	16	30	38	9	2	16	28	13	1	20
4	49	82	67	20	9	12	11	30	26	12	14	34	50	65	24	24	62	26	33	31	13	34	46	14	7	25
4	50	46	51	5	12	29	77	66	72	9	9	63	59	55	24	21	40	52	28	21	49	63	46	46	55	17
4	51	17	17	3	24	14	9	9	25	19	72	96	47	39	90	79	87	97	95	71	83	96	85	95	53	95
4	52	17	15	21	25	14	28	10	25	48	19	11	40	16	24	30	14	30	47	15	12	80	43	6	28	19
4	53	39	16	28	19	8	19	45	35	26	12	75	64	57	57	26	84	83	93	46	32	78	69	77	35	18
4	54	33	11	38	21	5	37	5	12	39	2	31	52	39	30	25	51	57	65	57	60	69	58	75	61	71
4	55	66	63	51	2	5	60	65	47	35	14	68	80	87	9	25	88	65	89	29	24	24	61	43	5	17
4	56	59	54	58	12	5	22	72	70	19	20	50	61	54	72	30	32	60	49	31	32	77	63	48	13	9
4	57	77	73	28	64	18	97	62	27	61	19	60	62	72	86	58	56	76	85	58	16	38	75	57	13	65
4	58	54	13	27	9	3	46	91	57	17	2	54	50	51	3	15	96	101	99	47	2	36	97	76	17	11
4	59	98	2	51	8	2	98	2	100	17	94	2	60	1	3	2	25	91	68	1	35	63	93	96	2	0

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	60	44	61	77	50	3	5	46	25	3	4	97	83	4	12	4	5	71	64	4	3	50	6	5	5	10
4	61	12	5	25	2	2	57	65	46	57	3	70	22	57	22	74	76	69	60	41	24	71	69	65	6	17
4	62	52	90	46	25	46	17	91	87	7	60	88	73	90	50	4	65	75	74	43	17	72	76	11	6	14
4	63	2	3	3	2	3	9	9	45	11	7	46	72	55	38	30	54	46	61	48	39	57	62	72	57	69
4	64	34	31	69	9	6	47	96	87	54	2	83	57	54	17	17	76	93	43	16	9	42	62	31	4	18
4	65	35	59	47	46	34	79	69	68	77	41	68	69	63	43	66	65	63	81	35	28	56	37	46	32	50
4	66	69	57	72	80	39	47	65	76	43	46	32	29	26	22	30	36	33	38	34	15	42	42	9	8	33
4	67	76	50	91	12	4	54	76	99	65	17	98	17	33	29	59	91	85	100	54	31	88	74	31	54	73
4	68	2	2	2	36	2	2	2	3	2	2	2	60	54	5	2	43	65	28	7	6	15	19	35	5	1
4	69	42	27	32	11	9	19	51	40	16	20	58	61	32	61	22	81	53	48	68	21	85	43	50	47	88
4	70	63	84	83	6	6	66	86	31	5	3	101	61	94	25	45	92	75	100	28	34	101	98	94	22	20
4	71	43	29	8	37	2	5	50	2	4	2	14	57	30	9	3	43	54	55	30	52	55	46	36	18	12
4	72	9	3	2	5	4	4	6	4	4	7	70	80	96	64	30	87	73	75	43	28	39	30	41	8	24
4	73	44	65	65	27	8	50	52	78	19	22	70	83	87	4	4	65	53	69	5	3	73	76	48	2	7
4	74	60	68	70	61	45	83	65	77	47	59	91	65	69	34	44	64	80	70	38	35	49	70	66	39	37
4	75	19	2	4	12	0	4	19	5	45	0	48	91	82	66	49	55	31	76	56	28	61	65	20	44	60
4	76	53	41	37	86	10	68	72	82	50	81	94	68	32	13	56	73	81	84	38	8	69	69	97	17	25
4	77	47	43	42	13	6	24	20	35	10	4	36	24	74	31	22	69	58	58	50	26	44	76	51	6	55
4	78	9	13	17	11	13	33	36	43	27	10	58	75	54	67	61	75	76	68	51	29	61	75	55	43	59
4	79	49	23	28	3	7	69	15	65	3	8	82	59	55	6	48	84	84	76	50	13	61	80	54	14	6
4	80	54	53	54	11	5	93	57	56	35	31	80	24	90	52	98	86	96	83	68	76	99	80	66	76	81
4	81	24	39	67	17	80	87	79	46	17	50	72	87	25	83	28	80	71	92	15	14	8	83	30	6	80
4	82	2	5	9	2	2	20	2	72	20	13	73	2	63	4	17	44	39	76	44	46	77	21	46	25	83
4	83	61	78	75	73	0	28	61	76	80	42	71	48	102	31	35	102	72	76	92	10	72	102	77	30	12
4	84	5	4	25	16	16	10	28	6	49	40	63	47	58	65	72	19	46	53	87	31	65	16	74	24	61
4	85	67	67	62	74	24	77	61	76	9	17	94	91	73	35	35	67	68	76	19	22	88	61	71	13	22
4	86	32	54	53	44	17	39	43	72	49	25	61	61	66	35	39	85	52	69	71	46	72	91	63	65	49
4	87	24	43	17	3	4	11	28	8	2	2	87	20	9	65	9	76	80	98	31	24	16	50	57	8	2
4	88	2	9	5	3	4	5	5	6	16	13	47	13	7	10	5	46	30	44	8	15	49	80	9	13	30
4	89	24	14	15	4	9	39	24	69	76	2	2	83	16	35	1	3	55	30	1	2	2	4	4	2	2
4	90	42	43	68	9	1	62	52	3	2	2	54	33	80	24	9	98	83	90	8	6	66	94	72	10	5
4	91	54	72	54	9	5	74	80	33	20	13	61	68	79	57	26	93	71	76	26	6	91	90	46	7	24
4	92	74	24	47	30	11	63	25	20	55	---	32	55	41	4	5	27	12	50	11	69	87	11	3	3	4

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C*	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	93	27	33	41	49	24	44	65	36	55	30	29	54	73	20	28	55	73	---	39	27	57	33	65	31	24
4	94	9	2	14	17	7	29	45	38	36	8	73	91	71	37	20	81	85	80	37	35	81	74	72	32	20
4	95	4	30	3	5	3	14	5	5	8	13	6	26	6	6	13	65	55	36	8	6	80	3	8	3	3
4	96	11	51	19	44	26	20	61	24	43	25	16	65	54	48	37	90	41	65	49	24	79	80	85	83	75
4	97	45	50	44	8	9	43	49	46	9	6	40	41	56	35	30	59	55	44	54	22	36	72	30	27	46
4	98	90	49	14	6	16	44	22	17	5	33	79	20	93	37	35	98	91	74	68	42	87	35	88	54	50
4	99	33	32	37	8	5	41	53	44	24	33	63	69	61	31	43	73	79	74	53	43	72	67	78	44	18
4	100	17	11	37	74	6	65	35	79	5	13	45	61	79	6	17	65	47	43	31	6	38	72	41	6	8
4	101	81	25	89	31	17	64	13	43	31	19	53	54	93	22	52	76	51	66	38	40	31	46	65	20	9
4	102	8	27	31	9	2	70	87	22	33	9	24	78	79	88	40	88	84	43	25	24	83	82	79	71	40
5	1	93	87	91	---	---	82	---	---	---	---	---	---	---	---	50	80	99	98	---	39	66	88	---	---	---
5	2	36	65	76	60	17	67	82	69	83	54	77	87	50	80	76	79	66	77	25	27	43	46	80	25	14
5	3	36	69	3	0	---	5	10	6	9	13	46	21	58	30	48	55	61	60	47	25	72	61	61	43	54
5	4	35	24	55	10	9	27	50	43	13	11	55	46	35	31	24	45	58	44	11	17	36	49	53	22	14
5	5	18	12	8	3	2	58	68	13	27	2	83	63	88	1	28	1	94	77	43	13	81	66	20	23	19
5	6	48	46	14	2	2	16	49	2	35	56	52	50	87	17	65	55	57	72	39	2	72	91	85	25	65
5	7	46	47	60	33	25	48	46	41	24	38	43	39	35	27	41	50	54	35	38	25	52	50	32	47	28
5	8	48	13	13	24	22	43	57	17	60	47	54	65	79	65	65	34	63	69	22	43	71	80	57	47	68
5	9	46	9	11	0	9	81	94	6	16	20	77	98	34	20	43	83	80	38	6	13	99	22	25	11	9
5	10	50	28	44	8	5	59	57	42	82	38	22	47	65	88	22	72	35	44	3	2	47	74	69	2	2
5	11	52	66	38	16	2	75	63	20	31	37	80	57	49	8	2	63	57	35	9	2	79	25	44	6	11
5	12	47	13	68	2	2	12	43	15	3	22	72	10	61	58	24	94	85	82	30	19	94	93	82	24	19
5	13	43	55	61	2	5	65	39	35	11	25	92	76	65	14	20	94	52	85	28	2	79	77	73	9	31
5	14	25	39	52	39	28	42	39	41	22	28	6	32	27	2	29	38	6	24	7	17	2	46	4	2	5
5	15	6	1	3	1	5	8	2	11	9	1	75	11	19	80	26	16	14	30	9	2	17	76	4	1	1
5	16	11	9	31	59	19	60	31	12	49	60	50	50	52	60	53	54	60	58	60	61	35	39	41	44	46
5	17	50	61	35	47	20	37	29	53	46	39	28	49	57	24	31	50	45	31	17	44	55	24	20	20	22
5	18	95	55	43	1	1	94	19	61	3	1	17	13	65	1	1	30	90	43	2	1	98	94	57	1	2
5	19	71	84	63	2	13	85	43	65	10	41	63	85	65	60	39	39	63	43	13	17	80	89	87	12	5
5	20	93	3	52	1	17	57	72	96	79	80	83	96	98	69	83	14	33	76	67	23	71	57	98	83	17
5	21	80	87	78	95	10	11	65	22	55	83	94	95	89	14	9	87	22	83	65	47	78	94	55	29	52
5	22	65	1	101	1	1	82	36	85	8	56	97	85	98	87	1	87	79	94	8	0	35	87	25	1	101
5	23	76	4	22	1	1	47	75	17	1	43	54	67	36	0	41	57	59	58	81	5	58	87	55	6	6

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
5	24	18	66	1	0	1	37	83	83	21	9	19	65	31	77	28	94	90	0	0	16	90	0	6	1	0
5	25	22	5	14	5	5	6	17	87	13	12	61	44	2	2	2	79	72	41	6	3	47	9	63	2	8
5	26	45	84	19	42	0	31	69	10	19	0	3	11	35	2	0	24	0	0	0	0	8	0	0	0	0
5	27	32	31	81	6	20	49	80	83	79	14	96	47	50	52	49	83	50	98	76	46	85	74	91	82	87
5	28	80	57	55	2	55	28	66	58	16	14	43	51	47	47	20	39	68	69	23	11	73	43	94	5	12
5	29	50	54	13	5	5	54	58	58	2	17	43	37	47	54	5	63	88	85	11	3	52	61	68	11	9
5	30	8	69	14	2	2	79	67	70	8	2	83	16	67	41	3	92	14	69	6	1	71	63	49	2	6
5	31	36	58	30	0	2	6	9	53	44	74	94	80	24	77	94	35	57	88	63	79	43	25	24	77	76
5	32	77	46	73	21	6	57	32	78	69	83	63	74	82	21	33	59	50	29	33	37	35	69	51	28	24
5	33	97	50	9	0	2	47	42	98	9	60	55	9	72	81	2	28	46	25	9	61	65	91	47	2	9
5	34	71	85	60	13	14	91	72	55	82	85	83	80	79	46	57	96	88	50	69	43	83	17	69	57	44
5	35	42	0	13	0	2	1	45	44	2	24	27	44	97	46	43	22	44	63	3	0	71	16	45	66	28
5	36	74	79	80	38	19	66	49	46	49	47	61	57	36	77	90	45	8	59	40	11	76	38	87	46	33
5	37	44	20	80	8	8	66	41	45	30	30	30	36	70	83	17	22	83	66	46	35	78	50	46	38	25
5	38	69	52	74	65	22	91	79	69	39	8	90	71	24	11	10	87	66	74	2	1	64	69	65	6	19
5	39	71	79	20	36	24	85	80	85	35	57	38	69	43	6	6	46	35	38	12	68	44	43	35	36	38
5	40	43	41	9	11	6	59	35	55	11	8	52	58	58	6	16	48	43	33	26	13	35	46	60	20	11
5	41	53	55	50	5	2	69	61	77	35	17	70	69	22	16	8	14	54	90	22	3	82	94	91	33	38
5	42	19	2	13	0	9	0	17	5	13	31	90	87	80	32	50	90	85	90	46	14	91	90	70	70	39
5	43	36	61	40	9	2	69	30	41	20	2	43	43	52	17	19	79	33	67	28	13	68	50	71	31	13
5	44	22	49	35	24	11	13	38	30	65	24	52	63	63	50	47	77	50	66	56	39	77	65	54	65	71
5	45	14	65	51	5	16	77	98	88	11	96	66	39	16	0	0	88	51	50	30	68	81	11	54	24	2
5	46	43	44	54	28	20	48	44	48	17	30	41	47	44	43	38	58	58	73	17	41	68	74	57	38	39
5	47	35	11	24	44	22	18	30	38	36	49	35	50	47	17	31	60	56	57	68	35	54	66	31	24	68
5	48	63	71	43	0	5	19	45	57	13	36	38	36	39	14	42	66	50	43	17	12	55	30	38	31	0
5	49	38	2	85	14	1	0	67	47	20	28	61	96	43	19	5	66	13	43	2	4	88	0	5	1	0
5	50	76	13	3	18	6	19	47	16	22	61	54	39	10	69	46	23	59	64	31	83	22	35	59	41	28
5	51	16	30	2	6	2	6	66	72	17	8	91	6	37	0	30	19	17	8	4	0	20	17	7	51	43
5	52	14	23	5	0	0	23	49	8	6	6	13	76	44	0	0	76	68	49	9	0	65	17	24	2	2
5	53	13	20	34	25	31	31	28	3	24	26	8	58	37	87	16	88	35	72	9	66	88	65	66	74	61
5	54	49	61	49	21	6	52	55	28	59	65	65	50	51	14	2	61	68	50	0	0	51	50	52	83	25
5	55	50	29	65	35	13	46	65	65	60	63	66	53	68	52	65	94	91	69	83	37	94	62	77	49	68
5	56	68	20	58	47	43	67	63	66	50	65	54	77	76	83	67	33	43	60	57	77	35	72	63	35	52

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
5	57	---	---	---	50	---	---	69	8	---	---	65	16	77	9	38	46	82	49	71	---	82	63	---	79	41
5	58	77	85	88	2	3	80	90	75	20	30	90	91	80	5	2	60	72	77	35	5	69	82	72	1	28
5	59	16	17	20	2	23	60	21	27	22	17	17	24	35	0	2	55	0	0	0	0	39	0	0	0	0
5	60	79	31	43	13	36	77	66	24	13	46	71	72	41	19	65	52	87	68	58	50	69	76	72	54	49
5	61	36	57	31	28	28	55	53	35	27	20	77	57	66	35	44	56	71	73	32	13	76	66	50	30	24
5	62	24	38	30	0	0	13	39	15	60	49	68	93	23	56	44	67	83	77	3	4	94	63	91	57	9
5	63	16	27	8	0	96	36	54	9	19	2	71	66	91	14	17	41	85	50	20	17	73	5	96	49	39
5	64	55	55	62	19	9	50	46	35	49	54	31	50	60	46	31	85	51	50	44	63	82	20	69	50	43
5	65	50	47	38	14	14	34	33	44	36	57	72	72	46	21	69	46	50	48	33	18	28	32	16	16	18
5	66	0	0	0	0	0	0	8	0	0	10	60	48	19	9	0	46	88	72	24	2	101	101	101	23	6
5	67	38	60	39	54	9	7	55	50	44	50	43	39	63	33	79	77	68	47	45	5	68	35	42	43	54
5	68	35	18	12	2	3	73	83	61	5	5	80	98	76	94	9	57	52	99	98	13	13	91	38	5	58
6	1	28	34	47	80	8	1	87	4	38	12	39	21	71	19	11	44	57	9	19	14	24	90	50	17	15
6	2	11	55	60	65	13	54	49	31	23	20	58	47	59	50	39	57	98	94	57	83	37	83	80	77	30
6	3	8	9	95	2	2	49	94	98	2	2	50	3	94	3	2	52	55	51	2	2	3	20	75	3	3
6	4	39	6	45	17	12	68	28	25	79	28	96	87	82	79	3	98	89	82	66	47	85	98	71	76	41
6	5	78	65	78	77	6	83	61	87	12	19	80	91	83	12	60	80	90	55	5	13	91	65	83	13	3
6	6	4	10	49	41	5	29	36	17	13	3	65	69	35	52	9	10	76	96	20	13	90	58	31	11	76
6	7	48	31	14	30	19	38	48	38	49	6	47	58	36	49	31	87	37	83	65	32	83	63	57	27	61
6	8	54	69	69	9	3	25	49	73	51	36	55	62	53	35	54	71	75	79	57	39	63	47	69	39	50
6	9	33	11	77	36	79	95	61	76	16	58	88	70	75	88	67	74	70	94	74	80	89	83	80	37	85
6	10	5	14	3	2	3	6	8	12	15	50	3	3	26	87	35	87	3	34	61	93	71	87	38	63	77
6	11	80	9	72	6	2	31	5	5	46	47	30	24	5	58	7	58	34	65	46	30	16	55	42	19	14
6	12	41	17	60	40	21	92	36	37	83	97	46	52	57	61	7	72	39	74	20	73	58	55	64	16	11
6	13	49	57	46	22	11	84	77	49	42	5	91	76	71	92	17	76	53	93	24	14	69	94	69	57	19
6	14	65	71	60	85	13	84	69	85	46	77	89	76	62	68	54	68	46	55	54	38	45	54	58	49	39
6	15	47	39	28	14	9	29	35	29	13	18	68	39	43	36	30	68	55	54	55	31	46	60	55	57	41
6	16	9	9	85	3	10	7	48	9	5	10	50	35	65	57	23	54	85	91	16	52	83	6	88	24	5
6	17	58	57	73	6	11	31	55	31	21	24	51	80	48	25	14	55	78	73	36	29	43	52	47	31	43
6	18	47	36	13	8	8	16	46	47	6	11	36	73	79	46	55	80	72	76	67	36	65	65	66	68	51
6	19	31	21	19	6	3	20	27	35	58	4	76	87	87	49	13	84	83	61	50	23	50	83	80	69	22
6	20	50	11	6	50	6	11	83	6	2	7	84	45	8	13	16	4	97	76	6	19	67	78	50	9	32
6	21	4	20	50	9	5	61	28	56	7	51	54	30	20	35	25	5	45	9	34	16	27	8	2	30	47

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
6	22	30	43	31	3	2	17	6	13	5	3	61	9	95	91	49	96	98	49	58	28	77	69	98	8	54
6	23	57	8	6	13	6	32	8	93	30	16	49	59	53	30	84	88	80	73	76	98	92	97	98	99	98
6	24	11	6	6	9	4	6	9	28	28	7	38	47	51	55	16	88	79	35	5	33	87	8	2	6	87
6	25	3	68	65	28	72	57	54	74	58	31	72	36	10	53	17	99	82	19	52	17	30	80	80	11	32
6	26	2	4	9	25	3	4	19	98	13	5	31	50	20	8	16	20	39	94	37	55	47	13	11	13	57
6	28	40	55	24	5	14	38	43	34	14	12	50	46	57	14	23	80	65	55	14	5	60	72	50	28	57
6	29	33	38	38	3	5	51	54	30	5	5	41	49	66	13	10	97	83	85	31	8	38	91	14	5	27
6	30	51	55	97	3	4	67	98	32	91	2	52	91	46	27	54	91	82	93	5	17	57	54	8	7	3
6	31	5	4	9	5	4	9	7	3	3	11	3	3	2	5	6	12	2	49	17	99	9	5	4	4	5
6	32	5	27	6	6	8	54	53	40	44	14	67	88	65	58	30	46	65	79	19	30	66	9	33	25	47
6	33	75	78	69	54	57	80	64	83	50	20	79	71	79	53	54	72	84	80	46	48	69	80	74	47	57
6	34	34	61	52	59	21	65	62	43	27	20	80	35	76	63	41	69	87	73	65	51	85	71	51	53	72
6	35	6	43	47	14	11	14	13	16	28	32	13	29	80	28	16	53	43	22	55	14	43	31	---	28	44
6	36	41	50	46	8	11	57	55	47	20	12	80	56	64	17	29	83	51	55	66	22	28	42	33	24	6
6	37	9	24	6	2	6	46	52	19	14	3	50	45	68	44	12	62	35	72	24	27	69	65	49	17	9
6	38	3	3	8	1	2	6	2	2	8	6	60	55	13	50	6	50	83	72	43	33	55	47	30	47	46
6	39	41	9	16	24	8	42	43	50	11	9	53	49	59	25	36	55	38	47	51	43	42	47	33	42	57
6	40	2	2	9	6	3	6	91	9	5	3	91	28	88	18	13	90	98	91	83	3	39	40	15	87	57
6	41	83	39	39	75	6	72	54	97	51	28	94	43	76	30	24	52	71	99	47	25	98	89	24	49	14
6	42	69	54	3	6	91	69	68	0	9	2	31	90	61	31	42	60	69	101	18	2	99	102	14	7	80
6	43	2	59	3	2	2	28	51	11	48	31	78	87	80	52	4	94	61	74	83	38	72	98	20	69	3
6	44	5	17	21	11	20	38	58	53	18	19	63	44	86	30	43	12	71	80	43	87	69	84	91	26	83
6	45	37	61	53	23	24	89	76	44	10	31	74	83	46	54	38	50	50	74	60	20	54	11	17	54	31
6	46	65	50	65	49	19	63	66	43	63	40	73	62	77	64	50	81	79	76	62	43	57	76	63	65	12
6	47	18	19	17	73	35	57	68	80	8	10	65	66	50	31	20	76	74	72	34	17	57	79	54	32	19
6	48	51	33	55	51	8	57	50	58	24	17	79	51	60	27	41	72	58	69	50	59	40	57	62	57	65
6	49	35	27	20	6	5	74	87	82	9	21	68	84	61	61	24	82	83	72	22	6	46	79	26	8	5
6	50	31	35	13	23	13	49	46	43	28	25	57	49	45	49	17	51	89	46	16	63	76	9	64	36	---
6	51	11	68	83	28	2	43	3	19	35	2	26	47	21	6	68	93	52	74	28	72	72	23	39	34	2
6	52	46	46	52	23	33	41	52	51	69	16	56	60	54	32	31	52	77	54	43	34	41	50	42	36	26
6	53	72	26	68	81	76	46	72	57	82	38	89	94	48	77	80	94	98	58	74	55	93	98	95	80	67
6	54	48	66	61	43	71	45	68	61	69	69	61	69	72	61	65	61	68	61	52	55	65	74	61	55	61
6	55	38	35	35	5	11	39	20	43	16	15	77	35	69	25	29	26	67	71	31	67	91	50	84	9	3

Table D-2. Continued

		Rated perceived masculinity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
6	56	65	67	67	35	35	50	66	65	66	66	50	41	67	68	35	67	50	51	55	39	28	39	35	35	38
6	57	34	61	20	19	20	55	38	35	50	28	50	71	70	46	65	70	69	93	61	27	65	88	46	51	38
6	58	11	53	36	25	75	0	22	27	0	0	6	30	33	0	16	94	48	49	79	52	102	94	85	98	83
6	27	76	91	83	86	97	53	63	92	14	90	17	28	59	50	90	11	13	11	45	73	5	11	25	42	97

Table D-3. Data of rated perceived femininity

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1	1	33	93	79	82	42	48	55	50	79	47	13	36	58	74	61	6	9	13	80	101	6	6	17	101	67
1	2	96	72	3	76	93	20	92	64	2	66	2	10	9	3	38	2	4	10	47	20	28	---	31	5	8
1	3	67	83	81	102	102	66	46	67	85	49	6	9	57	65	54	25	24	43	34	48	72	19	13	18	27
1	4	72	68	68	86	97	59	52	57	46	82	24	17	35	25	31	2	18	47	46	58	2	13	12	49	67
1	5	76	96	91	101	94	99	94	80	97	85	68	10	85	95	101	6	9	17	91	91	31	7	11	95	79
1	6	57	83	77	69	57	66	63	57	59	24	47	36	17	60	28	7	24	24	32	80	41	85	82	72	72
1	7	68	66	66	81	47	39	81	29	95	83	53	37	17	57	102	46	38	8	88	98	72	95	79	100	102
1	8	95	88	80	98	94	87	39	76	79	69	25	8	17	83	85	22	24	13	43	46	9	15	85	43	76
1	9	9	17	10	101	92	24	13	28	91	99	17	4	80	56	102	33	7	84	102	99	10	25	44	101	105
1	10	20	24	17	91	101	23	15	44	36	56	12	19	15	72	57	48	7	6	59	84	46	19	33	50	39
1	11	80	28	87	96	102	3	72	80	95	86	52	63	78	54	94	0	5	24	87	101	2	31	35	77	99
1	12	87	72	71	96	94	39	80	74	94	81	57	60	57	89	39	9	13	20	21	83	19	45	20	67	77
1	13	54	87	91	87	94	34	33	54	93	74	20	22	34	14	83	6	30	35	91	90	4	10	28	87	88
1	14	87	52	87	97	91	55	31	78	100	72	36	46	61	27	50	49	2	8	74	76	73	62	43	56	56
1	15	83	91	68	90	83	84	49	74	69	55	45	44	69	83	83	72	32	73	56	46	52	4	19	54	58
1	16	87	72	88	95	85	72	87	81	88	92	19	20	15	98	34	59	23	17	58	82	74	20	43	76	87
1	17	49	43	44	63	64	73	50	76	46	65	23	28	61	91	54	13	35	25	69	97	11	24	43	59	71
1	18	59	84	60	65	74	80	46	63	77	66	63	43	21	83	57	19	50	43	64	82	49	43	11	63	58
1	19	99	101	91	100	89	100	91	98	89	79	61	6	5	83	77	9	50	50	87	80	29	52	70	88	87
1	20	90	85	85	93	93	87	81	71	84	88	68	69	68	50	83	34	65	87	71	69	31	71	50	65	71
1	21	84	65	72	90	96	64	65	76	88	90	67	66	68	54	72	25	33	47	61	52	39	13	13	13	80
1	22	91	101	101	87	92	65	77	69	49	77	80	98	100	72	54	44	53	71	90	54	28	80	2	72	81
1	23	72	67	43	59	44	40	22	54	46	64	47	71	43	66	55	49	5	50	48	5	13	3	3	6	6
1	24	72	77	67	65	54	67	46	56	42	35	16	17	33	17	24	15	20	4	8	30	13	13	2	22	3
1	25	79	49	66	88	92	38	46	57	57	72	28	22	14	47	40	12	19	24	39	39	11	28	8	44	61
1	26	5	98	101	98	65	63	76	74	99	83	51	39	36	49	83	18	61	58	73	60	3	88	30	39	71
1	27	31	54	27	101	101	21	27	98	99	83	9	17	51	46	50	2	18	94	47	82	1	58	80	72	80
1	28	81	17	82	87	68	80	89	92	63	76	65	88	68	47	81	13	13	5	56	31	23	17	24	39	32
1	29	65	102	87	102	101	101	58	102	78	42	50	52	41	83	9	19	1	12	81	90	9	8	33	72	79
1	30	58	59	74	58	89	20	39	23	65	78	57	20	44	68	71	54	24	16	62	80	82	6	91	63	73
1	31	71	82	80	47	79	80	66	67	92	79	74	38	46	46	17	49	41	20	46	63	59	50	65	20	20
1	32	39	28	50	80	80	19	43	33	94	28	31	31	41	47	69	16	8	13	53	45	3	13	9	40	54

Table D-3. Continued

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1	33	79	96	69	100	101	91	75	53	68	57	50	57	20	43	66	12	47	57	69	93	46	63	49	70	72
1	34	51	43	63	76	76	31	48	45	72	73	57	40	35	83	69	31	30	37	63	77	42	49	38	73	72
1	35	28	43	83	90	84	87	64	65	81	81	33	13	64	80	19	12	14	19	80	87	49	16	6	73	69
1	36	87	98	66	76	89	96	84	91	83	51	50	50	61	43	14	46	17	34	50	36	80	71	66	69	83
1	37	68	72	39	75	75	31	64	83	62	53	44	10	58	63	74	33	44	39	41	94	58	43	43	89	80
1	38	37	45	55	52	42	2	75	57	96	87	54	87	58	18	35	38	19	27	20	20	57	11	8	89	2
1	39	16	83	31	91	95	74	11	27	80	93	10	9	8	88	97	11	8	17	80	90	6	4	3	38	81
1	40	16	34	78	85	95	19	48	36	83	87	50	17	11	76	89	24	24	15	67	83	2	7	8	74	74
1	41	83	83	82	81	85	84	80	83	69	71	56	60	61	65	73	15	28	20	74	64	9	43	7	79	54
1	42	80	91	79	93	98	80	90	81	83	79	77	70	17	65	74	41	8	18	46	46	19	9	10	39	38
1	43	84	47	87	100	102	67	91	80	102	102	61	54	88	98	92	65	28	52	99	100	67	31	36	76	93
1	44	84	80	94	94	88	45	52	87	55	83	61	25	57	57	33	61	51	17	58	54	31	12	67	41	81
1	45	102	90	102	102	102	80	70	73	97	102	24	94	39	70	83	28	15	31	35	53	0	27	0	19	5
1	46	91	91	87	74	84	86	8	81	85	80	9	12	45	26	89	14	4	54	20	41	24	43	18	39	66
1	47	83	51	48	96	93	47	12	14	90	76	83	5	6	91	80	43	12	43	86	94	24	19	31	50	93
1	48	5	57	8	99	98	47	4	41	61	37	6	17	9	50	51	14	19	14	77	55	20	41	4	64	82
1	49	65	12	11	89	102	13	11	36	80	95	4	5	57	93	97	13	28	57	87	101	55	20	59	72	101
1	50	101	28	55	101	98	51	27	49	99	101	31	45	50	65	49	64	9	66	39	49	38	68	19	83	76
1	51	85	46	55	102	95	52	69	15	79	91	9	9	12	43	83	5	2	9	50	77	15	3	10	62	80
1	52	94	83	70	82	87	79	35	61	85	94	13	13	8	82	77	7	21	9	91	102	14	21	68	88	96
1	53	80	95	91	91	92	83	89	86	87	85	70	67	76	50	71	34	39	15	35	71	44	23	43	47	40
1	54	81	57	19	50	91	47	17	44	14	35	14	15	63	41	76	39	38	31	52	68	83	44	58	83	87
1	55	80	94	44	101	91	82	83	35	93	92	72	31	92	94	98	76	72	80	91	101	5	83	100	88	98
1	56	89	62	89	74	66	54	65	50	53	55	50	27	47	46	45	11	34	40	38	52	24	56	19	13	72
1	57	83	76	76	90	76	80	76	81	83	74	56	39	7	79	92	13	2	11	77	83	57	4	16	84	74
1	58	76	97	79	42	91	88	76	65	77	72	8	9	83	73	17	23	28	65	49	44	19	58	35	45	38
1	59	25	74	47	95	17	61	29	49	93	54	57	20	60	91	87	29	11	13	55	39	6	38	17	76	71
1	60	50	81	85	83	60	76	60	72	19	43	22	31	35	69	39	13	3	10	68	14	26	42	25	35	50
1	61	67	91	64	83	76	59	70	72	76	67	68	69	63	70	69	24	49	17	27	74	28	24	14	65	62
1	62	61	71	43	11	98	55	51	22	73	65	4	7	46	76	91	96	19	6	57	97	102	13	94	101	47
2	1	47	55	36	46	65	47	37	58	72	31	19	30	39	43	46	46	47	47	52	74	54	27	3	96	40
2	2	52	36	58	94	71	48	38	33	83	94	70	66	64	47	58	6	59	58	24	72	35	47	75	79	79
2	3	66	59	40	94	88	39	52	66	87	98	30	53	9	7	88	5	1	5	4	77	1	1	28	98	76

Table D-3. Continued

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
2	4	13	57	59	50	93	34	33	12	61	77	9	9	47	64	90	13	25	8	35	57	8	9	32	63	87
2	5	43	65	58	71	49	47	66	16	39	69	31	47	39	30	57	5	2	2	54	44	2	5	42	46	16
2	6	87	87	87	69	87	58	63	62	69	68	33	58	57	49	52	19	57	57	10	52	54	14	14	24	44
2	7	43	27	41	63	76	16	54	41	71	77	6	59	24	43	64	20	19	14	61	43	13	11	16	67	82
2	8	50	61	61	79	82	61	44	55	80	76	44	44	51	61	63	28	31	33	47	54	36	41	38	31	36
2	9	30	52	6	68	93	31	22	45	77	87	52	45	14	6	30	28	14	27	72	5	6	19	35	72	71
2	10	50	54	57	65	76	53	46	58	68	83	38	41	26	44	62	34	22	38	31	35	27	14	31	33	41
2	11	16	30	61	22	97	33	46	44	66	99	5	21	19	25	83	61	9	47	61	65	1	11	1	58	9
2	12	83	48	61	97	96	68	61	61	78	96	25	70	5	52	76	25	8	6	0	74	13	39	57	3	52
2	13	87	99	98	90	94	87	74	20	87	61	2	54	22	72	25	4	5	5	11	41	61	11	25	64	63
2	14	67	46	69	99	99	59	87	35	76	96	44	39	63	98	83	8	6	14	50	69	21	6	61	50	75
2	15	77	69	63	94	61	94	77	63	76	88	69	50	55	54	16	6	61	61	0	27	3	0	5	0	6
2	16	6	28	47	98	91	11	80	16	96	83	17	2	63	49	20	88	0	3	80	11	33	16	8	65	81
2	17	9	45	47	61	78	29	30	22	76	83	6	12	36	58	65	31	3	0	69	65	6	24	62	67	65
2	18	30	66	67	94	87	46	52	21	61	78	7	1	5	75	72	9	7	1	46	68	2	40	1	61	1
2	19	50	41	24	55	51	61	17	72	68	70	38	68	35	34	29	19	67	23	14	56	41	28	23	2	49
2	20	52	49	43	20	24	35	17	31	35	58	35	36	49	71	46	57	31	11	38	43	36	42	8	38	63
2	21	12	39	47	91	91	90	52	67	94	100	5	25	43	72	92	14	15	2	96	69	2	4	80	94	83
2	22	50	79	29	74	100	21	52	50	100	83	49	50	50	100	100	100	0	47	52	49	0	20	16	51	47
2	23	93	100	98	100	88	54	0	6	94	98	8	1	0	100	100	0	52	28	100	84	21	57	98	100	83
2	24	82	90	83	90	89	44	39	45	63	82	41	23	39	20	57	9	7	46	28	27	1	22	14	20	4
2	25	13	41	49	91	99	43	57	54	74	87	12	44	9	77	91	22	41	46	66	84	8	54	6	52	16
2	26	39	46	57	73	90	60	68	65	65	68	55	59	29	55	67	5	9	42	38	57	45	12	8	26	72
2	27	76	84	80	51	74	80	51	2	63	85	82	79	53	49	27	13	6	50	3	18	16	7	2	7	16
2	28	95	89	83	98	98	16	98	58	83	94	14	52	58	56	39	6	14	7	31	39	3	13	8	6	28
2	29	80	14	24	98	98	93	16	24	97	99	30	19	2	93	99	11	21	27	99	99	27	32	52	99	93
2	30	96	98	96	98	98	47	97	80	94	99	80	88	47	91	63	4	57	63	54	35	47	5	19	20	52
2	31	6	7	8	85	87	19	8	12	76	84	61	18	7	20	65	3	77	17	65	76	6	90	24	85	69
3	1	50	79	65	52	65	66	54	55	49	46	43	45	50	74	50	20	50	47	49	61	31	23	24	31	45
3	2	66	83	69	97	93	24	30	72	61	93	52	90	58	65	71	52	57	76	56	58	73	93	4	80	8
3	3	31	24	29	102	102	19	37	28	41	31	23	24	30	76	24	22	13	21	80	78	9	50	16	20	33
3	4	6	55	56	93	98	10	44	42	100	87	5	19	13	80	92	4	7	8	98	98	5	8	7	91	99
3	5	74	98	---	36	---	97	---	---	---	83	35	---	---	79	51	---	---	---	---	60	---	---	---	9	---

Table D-3. Continued

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
3	6	72	96	74	69	97	51	22	60	13	60	27	8	22	71	96	42	97	28	76	95	86	91	88	84	96
3	7	58	69	53	94	99	75	54	60	91	57	58	53	51	74	83	11	27	5	72	79	44	24	12	50	87
3	8	50	54	71	88	82	50	54	50	72	68	50	46	49	72	78	52	22	56	72	90	61	48	54	71	92
3	9	74	83	74	74	83	73	47	67	83	67	50	55	24	77	70	25	33	31	80	76	74	28	55	61	87
3	10	98	99	85	85	95	99	92	80	81	85	49	63	38	43	71	9	11	17	83	41	8	13	24	33	61
3	11	64	56	63	63	68	87	60	50	76	55	66	50	41	52	49	0	6	17	8	0	0	2	3	6	2
3	12	73	57	100	94	101	25	66	33	74	76	35	47	9	44	57	17	37	24	75	75	29	3	4	57	74
3	13	73	55	98	94	96	45	96	59	97	90	55	58	61	54	80	23	50	20	92	46	3	47	9	65	90
3	14	50	18	72	5	36	43	20	46	52	13	35	38	47	53	64	2	36	22	1	55	2	4	24	9	45
3	15	82	75	88	96	94	62	46	71	79	82	61	57	50	42	16	13	50	31	67	52	26	54	54	60	55
3	16	75	74	86	83	83	57	60	65	66	67	50	50	60	47	39	5	14	27	24	6	6	5	11	9	6
3	17	45	43	63	39	70	50	43	62	35	61	34	30	43	61	61	28	29	27	63	69	61	24	24	69	61
3	18	91	80	83	94	91	86	17	31	89	80	48	10	87	83	73	12	6	93	94	53	28	69	60	83	78
3	19	24	99	30	47	91	51	97	98	93	82	93	15	87	17	90	50	77	63	57	64	83	58	63	77	98
3	20	65	87	79	92	79	71	70	61	90	91	70	72	37	88	100	11	57	25	91	85	3	46	77	87	61
3	21	43	61	53	96	98	39	56	54	95	80	13	32	13	85	56	54	24	13	86	89	16	13	16	86	87
3	22	69	83	60	76	75	93	74	80	79	66	25	34	32	80	85	56	65	31	75	85	66	38	61	72	64
3	23	89	102	90	99	101	31	88	66	55	53	2	2	3	81	25	20	36	2	78	98	10	2	1	25	97
3	24	68	46	52	90	87	68	54	65	91	93	9	5	6	80	91	17	14	6	76	88	54	8	24	80	61
3	25	54	82	50	99	98	13	89	48	99	99	68	22	24	46	82	0	2	20	99	17	5	0	0	99	99
3	26	52	43	46	80	81	38	36	41	65	35	46	25	49	27	68	51	43	31	60	68	55	20	22	47	60
3	27	49	17	43	88	87	47	47	47	79	84	44	17	27	60	63	38	14	47	65	71	66	51	68	60	65
3	28	94	93	68	96	96	83	66	68	65	60	28	43	65	54	85	55	62	11	58	51	22	84	20	6	57
3	29	33	15	65	68	70	33	63	43	77	61	17	24	27	41	60	69	69	46	74	65	22	48	32	71	72
3	30	43	61	54	68	67	28	46	77	71	88	54	61	65	14	54	2	7	32	66	80	0	7	6	47	74
3	31	49	87	63	72	77	39	69	13	72	68	35	59	66	24	50	30	13	33	52	39	50	38	11	65	57
3	32	87	99	82	81	68	55	35	98	55	46	55	75	49	16	94	2	3	25	80	2	2	5	2	2	76
3	33	52	87	71	66	27	101	77	101	74	54	87	87	90	88	71	0	8	3	3	0	0	0	0	16	0
3	34	60	52	91	88	63	63	55	50	65	55	51	56	52	28	79	47	31	39	36	3	3	2	2	6	10
3	35	44	37	54	60	66	60	46	52	88	66	44	46	46	30	33	17	8	9	45	12	2	3	44	49	13
3	36	6	76	61	89	72	44	66	76	75	98	5	6	32	95	91	3	46	6	43	87	2	49	9	87	66
3	37	88	74	90	91	94	79	77	87	68	52	0	9	46	41	68	0	5	2	24	55	2	0	2	32	54
3	38	46	87	82	83	71	82	82	21	59	69	14	20	41	54	59	32	20	52	10	50	9	6	15	6	5

Table D-3. Continued

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
3	39	27	98	38	92	93	96	48	96	79	71	63	14	2	91	31	27	60	69	96	0	13	68	4	98	74
3	40	63	10	3	94	98	3	51	6	82	79	8	2	2	78	74	0	35	8	82	75	88	20	0	86	44
3	41	54	79	80	66	88	69	79	65	82	77	62	55	63	57	81	56	74	56	69	76	57	55	55	76	86
3	42	47	65	68	78	83	36	41	80	83	63	33	63	64	65	66	20	3	9	25	46	2	16	22	11	43
3	43	50	96	60	45	84	72	57	65	61	39	31	27	41	53	44	33	6	2	38	67	17	2	6	34	43
3	44	17	69	96	74	20	20	65	61	99	25	31	96	54	74	77	66	90	85	99	98	0	80	0	50	36
3	45	72	63	47	52	63	61	55	44	77	47	30	42	45	57	54	24	63	20	60	68	35	6	8	69	71
4	1	60	62	47	62	70	49	44	59	71	59	31	68	35	52	28	11	7	13	50	8	6	10	9	52	6
4	2	91	54	76	98	88	70	44	77	51	77	87	55	50	67	55	10	12	13	50	73	56	23	41	16	67
4	3	---	102	---	94	102	---	---	---	36	102	---	---	---	74	102	---	77	0	---	35	---	---	6	---	43
4	4	82	54	61	85	84	66	71	69	59	70	49	9	54	39	72	24	52	28	14	36	3	53	20	61	14
4	5	63	57	69	85	93	64	23	82	56	77	19	37	25	48	60	13	6	53	31	53	44	37	36	42	62
4	6	90	79	91	76	94	76	82	83	83	87	74	28	75	57	72	91	10	21	68	75	31	8	54	54	58
4	7	102	102	102	102	102	79	102	77	102	102	0	46	0	102	102	102	49	6	65	102	9	46	17	85	69
4	8	71	54	65	93	93	41	46	59	94	91	43	31	9	63	77	33	55	57	79	74	9	46	24	70	76
4	9	65	60	73	65	80	68	58	41	61	65	61	52	62	44	49	23	22	54	43	54	51	11	20	49	65
4	10	35	52	44	83	96	20	38	44	44	85	9	20	68	68	76	11	8	7	35	74	24	39	4	66	71
4	11	27	82	77	97	91	87	31	24	100	98	13	19	39	78	80	0	0	5	77	93	20	7	3	79	91
4	12	102	102	102	102	102	6	91	54	97	53	88	74	102	102	14	9	53	4	77	102	10	0	38	102	102
4	13	28	79	73	93	91	80	49	71	87	91	83	57	2	71	70	47	43	3	46	49	3	4	19	52	52
4	14	46	98	82	63	44	13	35	58	65	46	35	49	11	65	30	1	31	11	43	58	33	36	1	24	35
4	15	74	79	71	70	83	60	68	46	72	17	71	60	66	64	86	24	14	46	49	35	49	42	41	51	47
4	16	43	50	48	41	58	45	51	46	44	41	63	28	72	26	26	30	3	19	44	67	24	42	11	19	21
4	17	44	96	91	96	94	54	14	69	80	74	50	58	40	63	76	5	50	20	87	94	25	88	85	100	39
4	18	86	49	57	93	---	19	52	33	30	11	54	87	70	28	64	---	90	51	9	---	8	65	69	---	65
4	19	28	2	53	99	102	36	36	60	102	101	5	2	49	98	61	2	5	19	76	96	1	6	19	85	94
4	20	52	52	29	65	44	61	57	63	76	71	49	50	32	65	79	13	48	25	64	80	46	33	30	59	57
4	21	83	90	86	88	89	74	72	72	76	85	68	54	75	50	69	50	38	30	65	57	55	39	54	44	55
4	22	31	31	34	20	44	41	26	33	61	44	30	23	24	39	36	7	14	7	32	22	24	30	27	41	66
4	23	88	31	6	16	14	76	13	57	63	76	49	52	9	47	33	63	31	8	13	13	37	36	10	52	40
4	24	54	68	25	65	84	67	83	61	43	63	47	18	53	37	45	43	13	39	60	98	46	64	83	92	91
4	25	7	10	3	78	80	72	5	10	67	73	6	13	4	67	76	6	6	5	46	75	6	7	5	23	12
4	26	99	82	82	71	98	69	24	39	69	82	16	45	20	24	80	2	38	28	80	69	61	14	74	94	63

Table D-3. Continued

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	27	67	71	69	71	85	84	54	72	65	80	69	28	30	43	52	17	14	9	43	63	10	20	19	79	13
4	28	34	35	35	39	47	24	17	35	40	52	13	9	34	22	36	19	9	10	32	35	5	17	19	31	12
4	29	81	74	85	57	90	74	80	88	47	88	9	13	30	49	19	9	47	2	48	75	9	17	11	55	79
4	30	83	80	84	90	83	69	45	65	50	87	9	7	24	42	35	26	14	2	27	61	37	2	2	2	33
4	31	44	25	49	48	54	74	55	54	62	39	43	43	43	43	31	22	26	20	45	41	24	40	35	27	39
4	32	54	44	43	75	60	31	57	54	82	54	44	72	50	69	102	16	11	5	99	97	51	3	2	80	72
4	33	95	95	95	88	94	83	54	79	84	76	45	46	42	58	55	6	14	4	41	43	6	6	5	39	6
4	34	36	35	35	64	71	41	36	22	46	31	35	17	28	39	27	14	17	44	28	35	35	7	25	57	50
4	35	13	59	54	98	74	42	67	21	63	85	66	38	2	63	85	14	2	6	63	99	2	2	80	19	19
4	36	80	90	80	98	100	67	58	87	99	102	50	94	47	62	66	50	37	14	55	76	9	51	13	44	38
4	37	83	63	76	86	81	65	57	31	31	69	21	37	55	38	82	18	9	13	55	74	45	25	6	56	68
4	38	76	76	70	82	95	61	56	52	82	81	17	50	72	58	89	9	9	4	76	55	9	66	6	82	76
4	39	58	68	67	71	80	32	54	38	69	74	19	20	76	76	80	14	27	21	65	80	20	15	9	80	75
4	40	54	43	50	88	95	5	40	44	90	87	28	30	15	84	88	51	2	8	49	87	25	35	93	85	80
4	41	48	49	35	87	83	69	77	57	78	84	46	57	45	79	86	51	19	63	39	82	58	52	44	74	74
4	42	61	54	33	61	72	63	44	9	54	71	30	6	31	51	61	33	13	18	49	64	27	15	9	49	46
4	43	92	76	83	93	102	79	68	75	75	91	12	39	46	89	57	21	24	22	46	68	41	36	87	28	72
4	44	61	87	91	87	82	74	70	76	91	84	71	67	76	99	66	28	8	13	50	80	62	23	14	39	22
4	45	24	86	91	97	96	94	45	66	84	94	72	4	74	65	61	7	16	17	46	102	9	12	90	91	95
4	46	72	72	69	79	76	69	71	68	92	74	27	47	54	89	64	31	41	16	63	74	33	24	56	38	81
4	47	31	67	90	98	80	49	72	43	98	101	27	31	52	102	99	3	53	48	98	101	76	82	2	81	98
4	48	61	44	41	80	99	34	54	39	57	83	50	24	28	72	91	80	58	40	94	101	76	56	63	99	101
4	49	25	28	71	66	98	82	71	83	47	67	58	34	24	46	78	34	53	14	69	57	60	46	55	101	62
4	50	69	52	86	73	76	9	20	11	73	78	15	44	50	59	57	50	40	46	76	13	43	64	34	63	45
4	51	83	72	93	89	89	99	91	96	90	96	83	71	59	72	78	5	2	5	50	83	2	5	3	42	17
4	52	16	57	45	20	32	28	50	20	76	20	32	72	15	31	17	22	40	9	45	3	28	31	55	26	76
4	53	79	73	80	83	79	83	83	80	83	85	35	53	76	37	80	19	15	11	61	79	36	45	31	64	87
4	54	71	98	76	79	98	83	98	86	63	100	77	56	47	66	74	35	35	13	47	49	3	29	31	5	2
4	55	50	36	43	94	94	43	65	56	77	94	13	50	5	85	88	74	36	13	81	83	61	30	50	81	83
4	56	34	44	43	80	93	76	40	44	81	55	50	39	41	57	58	69	57	49	69	76	77	43	61	17	76
4	57	51	46	73	71	87	31	48	67	72	82	36	50	29	31	34	23	13	19	35	94	23	12	24	76	76
4	58	74	86	79	88	95	69	14	65	83	99	55	50	57	97	80	6	2	9	62	91	54	5	27	80	80
4	59	2	67	1	92	97	2	94	20	72	2	96	19	69	98	97	2	6	0	101	79	0	2	2	96	45

Table D-3. Continued

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	60	44	19	7	19	69	71	9	25	84	99	4	13	43	49	28	95	5	3	77	92	50	94	50	97	69
4	61	69	77	63	74	76	57	43	50	47	85	36	75	40	75	37	4	17	29	57	58	9	2	2	65	59
4	62	54	17	57	87	65	88	12	26	86	43	11	36	15	57	98	36	38	17	54	86	23	20	96	98	76
4	63	101	96	94	100	100	68	87	50	91	69	31	29	18	59	65	20	29	34	28	49	39	5	13	10	32
4	64	62	72	43	96	99	47	4	34	53	100	22	28	54	73	84	24	4	43	84	95	42	44	72	98	83
4	65	69	59	55	65	61	46	46	43	69	67	45	39	34	71	49	42	50	52	69	65	47	63	50	71	56
4	66	31	50	36	31	75	42	53	24	17	30	62	40	73	42	43	12	39	24	82	48	43	36	91	83	44
4	67	20	60	78	95	97	49	31	22	45	98	33	13	74	73	88	12	17	2	76	88	4	31	17	72	33
4	68	65	39	27	2	63	44	47	61	87	51	27	2	2	64	44	2	2	2	2	10	2	3	2	2	2
4	69	60	76	74	79	85	93	65	80	84	90	69	69	66	79	83	14	51	69	33	32	9	9	24	39	8
4	70	29	24	16	96	102	32	17	46	99	97	5	42	30	90	83	6	30	6	91	98	38	5	8	98	79
4	71	5	10	21	4	62	13	2	37	68	32	14	2	3	47	35	2	13	8	10	5	56	20	6	31	76
4	72	97	93	94	90	94	95	91	97	85	84	46	28	28	37	68	17	6	2	21	28	5	3	12	8	9
4	73	35	65	21	50	77	50	17	43	54	43	13	4	8	66	36	13	53	11	54	71	7	9	55	35	54
4	74	50	39	32	53	71	11	38	17	55	60	63	25	35	54	54	33	10	24	51	66	31	20	10	51	61
4	75	98	102	101	94	102	95	83	94	79	102	9	3	27	17	66	6	11	30	9	10	29	8	0	0	30
4	76	42	69	68	57	92	28	69	6	60	91	9	8	28	47	77	19	27	9	70	86	16	9	2	86	81
4	77	47	31	42	48	84	58	46	35	59	75	34	46	13	19	57	17	28	22	25	77	39	28	31	60	33
4	78	100	80	73	93	86	73	71	71	72	87	72	48	67	42	28	30	19	17	63	71	35	27	11	60	55
4	79	67	83	63	84	90	46	74	64	77	87	39	39	47	75	54	10	6	9	54	79	63	16	45	76	74
4	80	75	72	84	81	92	91	82	84	79	62	63	80	19	69	98	46	8	78	61	67	2	30	2	76	72
4	81	82	66	23	82	59	43	47	12	94	87	39	67	67	94	54	13	18	2	69	89	80	11	56	79	77
4	82	85	99	83	97	98	88	80	87	91	97	2	54	63	72	39	22	28	8	6	46	3	13	11	3	83
4	83	22	17	17	26	102	73	40	31	36	82	13	17	0	87	86	0	18	74	6	102	10	0	16	80	80
4	84	93	91	78	85	92	60	65	76	50	51	33	31	24	6	9	43	41	3	7	46	8	51	10	74	14
4	85	67	49	52	75	78	46	37	76	86	84	24	13	23	81	71	25	35	22	76	94	14	52	63	80	76
4	86	73	87	80	93	91	77	77	72	67	80	52	73	72	72	68	20	41	50	52	72	52	36	64	35	61
4	87	63	24	64	81	84	83	52	54	86	98	28	57	59	27	93	10	20	27	46	73	80	13	5	69	100
4	88	98	94	69	24	63	61	55	67	20	31	9	15	53	33	17	5	3	11	17	6	15	21	8	25	41
4	89	82	87	85	98	90	98	84	98	36	99	99	13	87	68	102	70	58	80	102	100	47	95	88	101	46
4	90	73	81	71	99	100	66	50	78	86	85	54	16	4	67	82	6	6	2	65	85	3	8	20	78	65
4	91	54	59	66	89	93	17	9	72	79	87	50	19	13	55	82	1	6	17	82	93	5	6	43	88	79
4	92	22	54	35	67	62	31	66	63	46	---	17	46	7	50	42	27	71	50	37	14	4	3	8	16	83

Table D-3. Continued

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	93	79	74	66	64	72	77	47	78	46	69	80	65	46	75	62	39	37	---	50	57	28	58	43	66	76
4	94	51	2	51	75	77	43	69	47	74	74	13	31	27	69	72	17	8	20	82	69	20	9	57	60	69
4	95	85	71	90	93	63	24	93	80	95	90	69	64	80	63	56	5	85	74	83	91	50	71	50	72	98
4	96	84	31	79	51	88	74	52	76	55	71	84	27	54	50	43	8	55	25	41	66	9	9	11	27	14
4	97	54	24	31	49	75	34	29	20	80	92	41	32	24	39	51	6	6	8	39	39	24	16	16	52	28
4	98	27	75	73	100	97	86	91	94	97	84	85	76	35	65	79	3	5	47	83	55	16	71	8	92	52
4	99	61	59	69	65	79	63	38	63	70	74	36	27	47	68	57	8	6	36	43	76	17	35	14	61	54
4	100	77	91	45	14	88	31	40	16	84	84	45	20	35	73	75	6	11	14	31	82	9	8	13	84	84
4	101	20	76	14	90	87	65	63	68	70	80	55	43	24	67	42	33	37	20	68	61	42	24	61	24	65
4	102	93	83	72	90	99	41	9	88	71	94	71	24	17	14	62	9	11	52	76	80	21	11	19	30	62
5	1	---	---	---	94	96	41	71	88	85	87	94	72	94	87	50	---	---	---	76	---	---	---	88	69	87
5	2	80	43	47	69	80	33	28	47	31	58	49	31	61	36	43	28	27	19	85	64	27	68	23	77	83
5	3	52	69	47	79	83	50	61	61	63	50	3	30	10	60	43	20	---	---	40	36	1	11	17	39	30
5	4	41	54	27	57	67	43	31	47	67	69	49	35	46	61	69	57	17	33	63	67	64	28	43	61	69
5	5	77	76	71	85	87	85	68	61	59	79	36	39	9	93	33	8	2	14	71	80	24	39	11	31	83
5	6	98	52	88	96	99	54	82	96	96	76	52	50	58	77	65	24	57	69	74	98	3	2	6	34	80
5	7	50	46	39	62	55	43	49	53	58	50	65	46	55	54	57	50	47	58	71	43	36	31	48	48	46
5	8	71	82	71	77	65	60	61	65	66	47	67	65	33	20	46	58	25	46	72	43	43	20	44	20	44
5	9	58	64	49	98	87	23	7	57	63	39	14	2	17	74	31	7	9	8	79	35	0	3	14	26	36
5	10	58	61	43	85	95	54	16	44	19	54	16	33	31	2	71	14	64	39	74	95	65	20	27	82	96
5	11	47	17	71	80	96	14	46	60	67	68	47	26	46	87	90	39	69	73	84	91	19	69	42	80	80
5	12	61	54	77	88	64	77	57	44	81	49	14	66	6	74	53	2	2	8	69	50	2	3	2	54	50
5	13	61	46	41	87	88	28	46	65	66	92	3	12	14	63	81	2	8	14	61	90	89	14	16	67	69
5	14	38	54	52	22	57	27	49	35	46	43	28	36	38	47	49	2	14	6	41	57	85	2	4	2	30
5	15	72	87	80	96	88	83	82	61	85	86	20	65	50	9	26	74	71	68	71	93	61	8	76	94	93
5	16	87	91	72	94	85	18	72	69	72	60	50	46	51	47	50	6	60	39	79	43	12	60	52	57	88
5	17	50	39	35	38	57	39	36	30	25	55	47	24	27	58	55	50	28	31	17	57	41	17	52	57	50
5	18	1	52	59	98	100	1	66	35	98	98	80	69	27	98	98	58	6	61	98	98	1	17	17	101	98
5	19	35	14	26	88	98	13	43	6	94	60	42	24	35	74	56	22	24	54	93	80	11	6	2	76	86
5	20	49	91	77	97	93	57	25	95	94	85	68	65	54	85	78	17	59	76	94	8	31	90	1	57	94
5	21	76	31	71	52	90	77	79	94	94	52	2	9	14	76	92	14	17	19	78	96	20	3	53	95	89
5	22	58	76	1	98	95	24	55	35	87	55	2	2	13	20	98	20	27	2	85	98	80	20	59	98	0
5	23	58	94	80	98	98	52	58	84	98	54	77	72	43	98	91	69	52	50	87	98	31	13	50	98	94

Table D-3. Continued

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
5	24	82	66	93	93	92	66	42	50	80	94	61	65	87	83	87	15	9	96	88	93	90	102	72	89	96
5	25	47	91	93	75	66	63	57	5	83	74	9	47	2	96	47	1	14	9	91	96	2	35	17	88	54
5	26	9	0	71	2	0	17	17	53	58	42	35	50	11	49	43	13	0	9	42	0	29	0	0	8	49
5	27	66	82	79	96	91	76	87	71	93	40	1	17	58	61	50	16	50	0	69	54	7	43	13	79	6
5	28	64	69	59	82	91	66	39	30	81	77	39	65	47	69	79	46	17	22	68	91	38	20	30	87	85
5	29	55	16	87	90	91	16	48	6	96	80	43	49	47	17	71	1	0	0	87	83	2	2	2	59	83
5	30	88	35	66	85	88	5	16	22	87	91	30	85	38	82	91	1	36	17	77	91	1	38	57	87	85
5	31	80	90	69	98	95	85	77	80	14	22	13	25	65	16	18	50	31	28	28	55	24	85	91	28	29
5	32	38	52	61	67	88	44	60	35	69	83	14	33	22	70	83	2	42	29	63	62	30	19	33	61	71
5	33	97	50	35	96	98	2	33	1	72	81	60	9	11	80	97	39	8	15	71	67	69	4	75	95	80
5	34	95	91	94	83	94	94	49	94	86	91	24	17	87	82	79	0	83	52	87	86	1	5	13	57	46
5	35	50	46	72	98	98	75	45	44	98	74	55	44	0	9	69	50	44	6	88	93	0	99	45	41	98
5	36	58	57	55	87	90	46	33	47	49	77	39	60	64	13	44	45	8	72	65	91	32	36	43	61	55
5	37	63	82	86	88	96	80	77	63	65	46	35	50	66	55	80	76	39	50	57	82	3	43	51	79	68
5	38	54	53	25	65	77	46	22	65	68	79	18	72	85	83	87	6	35	39	94	99	54	65	66	94	88
5	39	46	16	68	65	87	24	44	35	60	52	63	28	54	98	98	14	52	52	61	43	76	50	72	67	79
5	40	39	35	69	69	80	20	57	31	55	54	11	8	3	69	47	13	6	50	61	50	56	9	20	49	46
5	41	71	55	65	93	96	50	61	28	80	79	71	22	80	74	93	9	27	3	72	87	13	3	3	64	72
5	42	82	96	76	98	93	98	82	96	68	90	30	5	12	71	74	0	13	13	91	94	0	6	17	20	74
5	43	46	39	30	74	66	24	36	21	69	74	20	11	25	71	74	8	5	9	38	82	14	8	2	54	56
5	44	74	43	63	61	65	71	72	67	55	68	44	44	46	46	58	13	63	43	43	61	12	17	28	31	24
5	45	65	44	71	65	71	20	2	19	83	35	3	24	44	94	82	0	3	5	57	17	5	54	0	69	82
5	46	61	46	49	74	87	51	55	48	65	74	52	50	50	52	62	25	30	22	69	54	11	27	38	46	63
5	47	50	69	68	76	46	69	79	87	66	31	47	36	55	28	68	2	35	35	25	6	6	24	22	17	25
5	48	35	8	39	99	90	51	39	16	38	66	31	44	47	39	43	24	12	5	69	98	2	49	39	47	82
5	49	35	91	57	47	49	98	13	47	65	31	3	0	1	22	39	0	2	2	23	11	0	0	1	3	0
5	50	11	90	96	71	83	88	54	63	65	35	31	43	54	10	57	58	17	12	60	28	66	30	25	6	49
5	51	75	88	96	83	88	63	50	37	80	82	11	57	37	22	76	0	79	88	94	10	12	22	29	50	46
5	52	66	41	79	91	96	25	60	61	98	88	60	16	39	80	54	0	19	47	90	99	2	17	20	50	87
5	53	85	87	75	93	96	66	87	98	78	79	8	53	77	25	80	19	69	21	48	41	9	17	25	27	20
5	54	60	61	65	87	96	52	49	67	66	76	28	57	51	75	93	51	28	66	80	94	60	58	52	77	77
5	55	69	81	68	90	96	46	65	65	71	71	43	53	59	77	79	2	28	51	60	87	2	50	55	75	68
5	56	60	83	68	79	71	50	52	53	44	39	49	49	57	12	39	25	27	24	55	39	5	47	4	57	20

Table D-3. Continued

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
5	57	94	83	94	41	91	76	69	90	81	96	47	66	24	94	79	---	---	---	14	48	---	29	28	43	51
5	58	33	28	39	96	84	10	25	30	93	65	50	72	8	74	96	38	48	23	91	90	9	30	14	73	80
5	59	49	65	25	13	39	35	39	52	27	44	17	24	35	38	2	0	0	0	17	43	0	0	0	16	0
5	60	46	71	73	76	66	49	43	80	87	65	43	38	51	87	35	52	55	60	69	71	22	30	52	66	61
5	61	50	43	68	66	52	42	53	46	74	71	47	39	27	59	33	28	31	39	65	82	20	39	35	76	76
5	62	69	49	68	98	97	91	61	83	31	55	25	0	79	17	56	9	9	16	95	83	2	35	0	27	87
5	63	91	66	91	96	9	66	54	86	80	98	52	88	2	77	72	14	9	63	76	71	14	63	0	55	74
5	64	22	58	16	52	44	46	9	54	43	36	31	50	47	55	46	13	2	24	33	53	19	0	33	55	36
5	65	66	47	63	85	85	48	49	44	74	24	13	28	61	66	48	19	36	43	63	79	28	39	16	69	66
5	66	101	101	101	101	101	101	94	101	101	83	44	48	74	85	101	46	14	20	79	91	2	0	0	61	94
5	67	63	28	46	49	74	73	49	68	59	55	38	19	35	72	35	19	17	38	77	73	6	16	42	77	76
5	68	26	29	58	49	74	1	2	1	72	98	2	0	0	0	51	3	2	0	5	8	21	0	2	24	13
6	1	28	34	8	23	86	15	0	5	41	42	39	1	10	43	55	17	1	25	28	33	2	4	25	57	1
6	2	73	33	31	74	71	54	49	58	68	68	35	45	22	50	49	30	8	17	67	11	63	16	9	71	38
6	3	91	91	11	97	99	54	6	4	99	100	50	99	6	101	98	53	54	51	98	99	98	78	22	101	96
6	4	54	94	72	81	88	59	65	64	27	78	5	13	19	79	90	4	10	5	36	64	13	3	16	9	72
6	5	28	59	54	77	83	46	61	26	80	82	13	11	17	80	79	16	8	54	94	81	7	29	25	83	97
6	6	87	76	49	50	80	46	12	47	83	70	13	14	31	52	54	76	9	8	31	65	13	24	16	50	39
6	7	48	11	13	80	94	46	53	25	57	90	9	58	2	60	85	25	18	0	35	37	25	21	5	28	31
6	8	57	82	65	69	88	61	55	80	61	84	61	34	37	61	74	24	38	26	57	82	35	26	13	76	57
6	9	92	95	77	72	57	54	91	65	69	78	35	47	12	39	65	35	57	5	47	11	21	32	3	31	17
6	10	94	91	80	98	98	83	83	85	76	51	95	97	35	10	68	17	98	75	22	11	25	9	12	28	19
6	11	15	98	39	79	93	93	83	98	68	74	70	61	92	54	79	5	71	57	10	20	35	6	24	31	3
6	12	50	50	76	5	91	59	75	83	61	28	101	86	11	50	92	44	91	25	68	26	36	3	11	80	68
6	13	47	61	55	82	94	6	10	69	67	87	28	18	11	93	43	16	54	5	79	87	25	6	44	33	80
6	14	64	71	68	85	76	60	36	60	80	77	54	50	62	68	76	36	68	55	60	66	27	36	58	72	65
6	15	61	60	66	82	91	63	60	66	83	74	27	59	44	41	46	14	28	20	17	47	5	36	24	47	54
6	16	87	88	36	92	83	89	65	85	76	82	50	69	68	58	72	54	9	9	59	52	8	91	6	61	66
6	17	69	67	43	98	96	81	81	88	93	87	71	64	50	69	71	61	35	21	72	69	51	68	78	84	53
6	18	63	65	79	82	72	75	58	71	71	57	46	28	43	49	43	9	12	11	12	20	20	6	24	16	24
6	19	72	81	80	84	92	82	76	69	67	90	20	8	6	59	72	3	8	19	35	61	51	10	13	47	51
6	20	58	92	56	18	74	85	7	91	80	78	27	57	85	86	50	83	1	10	81	57	19	9	31	61	28
6	21	70	78	43	69	58	57	71	65	87	73	47	81	68	71	48	63	84	28	43	87	44	14	39	28	59

Table D-3. Continued

		Rated perceived femininity																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
6	22	79	80	75	87	99	91	94	87	91	98	39	69	14	23	69	6	5	58	74	66	20	8	4	82	70
6	23	65	88	98	87	99	61	86	69	80	43	49	69	52	76	54	10	17	25	16	19	6	18	12	11	7
6	24	94	93	94	94	96	88	96	79	88	88	80	55	51	77	79	14	24	71	82	33	35	0	2	0	26
6	25	83	43	16	87	75	50	17	7	68	71	72	36	93	57	85	8	77	20	68	82	2	6	2	83	23
6	26	91	87	80	67	85	84	87	2	75	79	71	85	61	17	85	69	28	3	57	39	9	81	96	94	13
6	28	63	69	63	80	85	54	57	61	87	93	50	77	62	83	45	13	51	28	57	91	31	9	38	61	31
6	29	72	59	55	97	97	51	54	47	94	98	61	49	43	94	78	5	21	12	72	99	46	5	74	86	71
6	30	61	54	58	92	97	36	22	76	57	89	17	72	45	73	54	13	16	9	95	100	63	54	98	89	94
6	31	98	101	98	98	98	91	91	101	96	98	94	79	96	98	98	94	98	60	98	3	101	101	98	99	100
6	32	80	63	80	81	72	48	72	70	54	74	55	17	53	26	69	37	10	5	73	24	17	10	69	46	13
6	33	71	78	69	79	88	69	65	83	76	70	31	66	66	79	79	21	17	20	76	85	31	22	42	62	68
6	34	72	68	70	54	87	72	73	74	85	77	20	62	76	51	69	31	13	44	18	51	31	28	61	50	33
6	35	6	28	43	6	30	70	24	40	45	69	71	47	87	39	25	31	39	57	51	15	39	16	---	55	19
6	36	46	55	5	64	83	39	50	29	79	99	6	5	11	54	24	5	20	12	6	96	51	11	14	23	80
6	37	78	71	86	81	89	54	35	71	70	81	46	58	18	61	71	20	59	20	58	67	25	25	45	69	73
6	38	76	71	74	91	96	68	95	74	49	69	3	5	55	6	47	2	1	2	6	10	2	9	30	14	6
6	39	63	80	77	65	78	57	71	46	57	67	28	49	9	43	51	5	17	8	33	37	8	11	27	13	11
6	40	96	95	69	91	90	84	39	71	91	88	4	78	6	94	57	8	6	3	16	85	20	74	86	16	2
6	41	9	33	35	46	97	39	14	4	54	82	14	14	41	71	90	44	13	2	48	84	2	11	71	36	77
6	42	58	54	101	98	39	39	49	102	98	100	79	11	23	72	31	72	49	49	83	8	2	50	25	76	25
6	43	98	91	72	102	98	91	49	99	69	85	45	25	44	52	98	1	34	5	29	76	7	16	65	91	74
6	44	94	91	92	72	80	72	41	71	83	90	50	57	17	78	61	91	33	12	37	13	22	24	11	79	3
6	45	80	93	30	75	92	8	14	91	75	76	29	3	55	76	54	64	49	9	40	24	34	46	84	27	45
6	46	54	71	69	77	85	65	49	64	57	76	46	46	49	47	63	20	39	31	54	65	43	30	42	58	79
6	47	69	69	69	17	87	41	13	31	83	83	36	13	19	77	66	13	22	9	66	76	33	24	42	49	80
6	48	61	55	46	30	77	46	30	35	83	60	16	51	38	20	57	34	16	24	50	71	69	52	41	57	71
6	49	74	70	74	88	96	24	13	16	91	74	30	27	68	67	66	91	26	19	47	99	27	8	7	13	38
6	50	39	42	22	77	89	50	57	54	50	91	46	81	50	83	81	51	14	19	85	31	16	9	37	57	12
6	51	31	39	13	49	89	43	46	42	63	98	10	48	2	45	86	20	2	1	28	2	2	16	2	80	76
6	52	54	51	49	50	54	50	54	46	32	77	53	35	49	57	51	18	39	15	28	50	25	38	46	49	87
6	53	28	79	83	82	80	64	72	61	44	80	29	35	63	38	80	27	5	9	19	43	3	9	8	8	10
6	54	69	74	64	56	52	69	50	57	53	62	43	54	68	69	42	44	41	51	61	76	49	60	54	66	51
6	55	76	73	72	96	94	72	75	67	87	84	35	77	47	86	72	91	30	30	30	37	6	69	35	81	99

Table D-3. Continued

		Rated perceived femininity																							
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
6	56	52	67	68	69	51	66	53	66	40	66	66	51	66	39	56	54	39	51	55	67	26	38	35	52	8
6	57	87	90	90	88	87	87	81	91	65	68	90	55	16	69	66	29	22	5	65	82	17	12	46	51	80
6	58	89	90	95	90	37	102	94	77	102	102	94	77	69	102	65	2	47	50	37	65	0	6	24	6	31
6	27	20	10	13	16	4	56	29	31	6	3	87	75	39	18	22	93	98	85	50	35	93	91	79	54	6

Table D-4. Data of rated perceived attractiveness

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1	1	2	25	33	20	36	27	8	50	23	50	69	54	43	24	49	69	42	59	25	2	33	29	6	4	25
1	2	46	40	38	20	11	6	38	24	2	17	94	77	76	60	24	83	89	49	76	9	8	---	2	1	2
1	3	76	83	86	88	91	57	71	66	76	33	72	74	53	57	50	69	21	25	24	19	19	7	6	2	4
1	4	46	54	60	78	87	49	38	41	33	76	18	11	41	23	28	26	50	30	30	21	3	13	30	14	16
1	5	94	50	75	2	2	83	88	86	68	10	81	95	76	47	17	47	2	9	13	3	2	1	2	3	2
1	6	70	74	68	30	36	50	56	69	24	27	49	20	6	6	20	57	9	29	21	14	31	2	5	14	6
1	7	57	33	51	71	6	33	71	28	79	71	28	51	78	54	5	55	36	69	14	0	9	5	6	3	2
1	8	57	28	31	28	27	31	22	39	45	28	40	15	49	50	25	55	33	39	15	23	28	9	9	11	8
1	9	10	4	13	100	76	1	11	1	35	80	2	1	53	3	1	1	1	1	1	1	0	1	13	1	0
1	10	20	29	16	91	63	36	38	33	57	44	28	43	65	4	28	54	57	50	17	0	29	19	35	22	11
1	11	23	24	9	31	43	0	16	6	31	17	35	23	3	5	2	56	78	39	0	0	93	28	18	4	0
1	12	76	28	50	53	72	29	91	54	67	44	36	45	66	25	14	67	61	69	40	13	35	28	4	13	9
1	13	59	31	53	24	39	11	57	67	49	27	16	43	64	17	63	90	16	17	11	4	62	2	2	2	2
1	14	90	44	6	84	22	52	27	59	95	37	24	32	31	24	33	39	85	46	15	17	31	6	18	10	8
1	15	58	65	27	49	9	64	36	44	18	31	40	29	53	48	52	24	6	5	15	22	14	28	13	9	7
1	16	78	53	55	94	57	54	60	69	60	68	17	18	2	2	2	2	6	15	3	2	2	2	2	2	2
1	17	5	17	8	7	9	20	14	24	11	10	16	16	11	5	8	27	16	14	3	3	48	13	8	5	5
1	18	27	55	62	9	17	49	11	21	25	28	21	9	49	17	6	7	2	2	3	19	0	0	0	0	0
1	19	80	77	36	82	58	79	82	88	77	51	77	90	80	28	57	80	75	51	24	0	14	11	0	0	8
1	20	18	14	6	14	14	39	12	12	9	13	12	15	6	14	10	16	9	9	10	14	14	8	5	6	12
1	21	70	64	49	96	90	67	59	72	80	71	54	57	20	41	65	49	62	57	31	34	34	19	32	32	30
1	22	9	6	20	14	17	65	71	68	50	68	85	99	100	46	54	41	39	70	28	73	24	18	3	33	3
1	23	50	47	59	46	32	26	28	27	48	30	39	41	24	31	28	24	9	41	39	18	25	3	9	6	0
1	24	67	78	63	31	38	62	38	52	11	20	8	11	12	2	12	2	2	3	3	2	2	2	2	2	2
1	25	88	67	54	73	72	46	31	76	27	55	66	74	57	38	39	38	10	39	9	24	31	10	22	25	11
1	26	54	27	66	50	71	65	65	57	102	85	87	76	92	82	69	77	65	89	70	56	79	65	63	55	54
1	27	31	50	3	76	98	1	3	99	76	64	2	2	51	1	30	70	49	2	19	2	21	1	1	2	1
1	28	72	69	78	48	44	72	81	84	44	51	49	61	68	50	48	80	44	63	35	43	71	46	37	41	50
1	29	1	50	53	38	46	55	1	46	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	30	38	39	52	48	43	44	25	11	43	28	24	17	36	16	12	21	24	15	21	25	19	9	25	6	9
1	31	59	59	61	66	67	38	65	61	73	55	63	66	64	73	35	36	56	56	52	39	28	39	46	45	51
1	32	28	19	31	73	84	13	44	43	94	17	25	---	38	39	59	38	53	31	10	7	20	8	4	6	9

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1	33	61	50	57	20	25	58	73	51	45	10	47	44	10	31	17	31	38	13	3	3	5	2	4	3	2
1	34	41	50	38	8	53	19	38	41	53	41	57	27	41	57	55	24	49	47	29	17	21	6	43	30	5
1	35	33	47	38	56	69	31	35	35	82	9	19	6	25	16	19	9	35	24	13	4	4	3	3	11	4
1	36	79	67	16	21	10	92	92	97	28	18	69	71	63	28	60	58	52	43	32	13	24	19	22	25	13
1	37	65	69	41	74	73	25	64	74	66	57	50	69	23	38	69	55	35	46	30	---	22	39	15	9	17
1	38	47	41	24	27	28	77	55	63	80	2	47	87	69	15	22	28	82	50	19	6	20	2	1	6	2
1	39	76	97	88	98	95	87	51	71	76	38	72	60	56	54	66	83	77	73	66	56	69	22	17	64	63
1	40	93	100	90	90	89	76	73	72	90	21	38	28	43	9	23	36	17	32	18	8	25	28	33	10	6
1	41	32	9	16	6	13	96	80	91	38	13	23	27	58	14	14	22	17	45	13	12	17	4	5	5	5
1	42	76	64	63	71	80	46	71	68	65	57	43	50	25	29	57	24	32	29	20	24	24	24	16	11	20
1	43	96	54	87	97	78	57	86	83	82	80	67	69	81	9	76	20	48	57	5	2	21	50	43	5	3
1	44	85	73	87	77	34	40	31	83	40	76	67	29	65	61	33	38	40	26	26	31	13	3	26	34	18
1	45	32	35	25	14	8	24	16	20	27	12	0	26	0	9	22	0	0	0	0	0	1	0	0	0	0
1	46	83	94	87	80	79	70	94	75	69	63	53	83	62	39	59	33	69	25	33	9	18	17	40	39	17
1	47	65	25	94	94	72	31	42	33	76	23	101	46	43	80	52	25	21	18	32	93	6	6	5	5	2
1	48	38	67	52	66	58	54	46	61	57	50	39	42	61	50	59	76	59	65	47	55	73	50	58	53	46
1	49	65	17	57	35	34	6	27	19	41	2	2	2	57	2	2	41	2	2	2	2	2	2	2	2	2
1	50	28	18	67	83	50	18	83	49	91	90	46	79	49	42	27	51	95	24	50	39	9	9	2	2	4
1	51	79	76	53	102	96	71	17	20	77	6	0	0	5	3	22	6	2	0	0	0	4	2	4	6	0
1	52	71	14	83	43	17	72	19	50	79	39	72	6	26	2	21	71	80	76	4	2	50	60	9	2	6
1	53	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	50	7	8	4	13	20	9	6	3	4
1	54	64	72	8	13	67	34	24	38	76	14	24	28	29	3	70	9	5	4	5	4	0	9	3	2	3
1	55	68	90	60	83	24	17	46	57	50	25	46	35	37	38	49	2	2	17	8	2	21	3	2	5	3
1	56	92	75	59	66	55	66	72	50	37	47	43	43	52	32	38	31	24	9	23	6	5	3	4	8	0
1	57	37	69	29	66	33	2	44	38	19	2	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2
1	58	62	90	62	9	77	77	63	27	65	61	65	76	59	36	6	6	12	12	19	5	1	27	9	5	8
1	59	10	25	41	46	66	31	64	41	80	32	50	25	20	13	80	69	16	35	34	25	12	46	22	35	25
1	60	46	69	41	72	52	61	50	47	8	31	12	11	20	3	11	8	2	12	6	2	10	11	2	2	2
1	61	61	28	35	13	43	82	83	77	69	53	60	72	74	44	72	72	57	36	20	33	66	11	66	28	7
1	62	8	3	11	16	2	6	22	0	6	8	72	50	8	0	5	0	35	41	6	0	2	16	0	0	6
2	1	37	48	21	46	50	47	38	58	71	47	49	29	31	30	14	20	47	45	24	26	38	10	6	10	13
2	2	25	36	35	94	61	33	45	30	67	94	59	67	24	31	16	49	32	47	36	3	27	31	5	7	4
2	3	27	48	31	87	84	58	25	44	46	93	39	27	11	2	35	2	1	6	4	43	1	1	15	2	31

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
2	4	17	42	47	17	56	29	14	17	17	39	59	43	19	14	16	17	37	74	28	16	72	8	8	20	9
2	5	35	58	49	63	44	41	57	47	31	61	22	40	35	35	49	55	51	45	6	14	37	43	6	8	19
2	6	50	55	54	54	51	43	68	43	69	65	35	50	45	38	37	50	59	52	64	47	56	43	32	46	56
2	7	52	40	29	37	48	39	48	28	63	46	22	67	24	38	43	60	43	65	35	31	75	50	53	30	43
2	8	50	71	61	43	53	67	44	60	69	76	54	60	43	54	63	41	55	63	43	37	46	41	27	46	28
2	9	25	24	12	62	77	39	7	35	83	87	20	19	38	89	93	35	63	29	9	95	0	14	3	2	20
2	10	40	47	51	55	70	44	30	50	53	72	25	28	25	33	49	11	24	32	13	9	14	6	9	6	15
2	11	20	35	62	35	96	31	36	31	57	92	5	12	24	14	74	35	8	47	52	13	1	8	3	31	49
2	12	39	21	35	53	77	11	2	1	52	91	6	25	11	33	25	6	16	2	61	0	4	9	3	61	4
2	13	70	98	98	84	94	38	44	85	62	56	76	27	82	18	31	63	62	86	17	15	41	87	1	2	3
2	14	72	44	44	68	90	27	20	26	20	17	64	33	4	3	13	41	54	38	5	19	69	47	1	3	8
2	15	93	89	96	100	100	100	100	73	98	100	95	57	54	63	28	25	2	5	2	12	1	6	2	6	2
2	16	31	31	43	79	90	18	72	32	92	24	29	49	52	31	27	65	91	46	4	4	14	16	17	36	6
2	17	76	39	35	24	8	78	42	79	7	2	93	93	65	27	26	52	83	91	42	27	86	65	62	24	6
2	18	79	81	80	71	42	79	94	47	67	66	80	89	87	36	47	2	40	75	13	6	11	4	1	3	13
2	19	39	33	27	35	43	61	46	59	59	40	58	61	44	66	6	27	43	48	19	40	57	17	17	6	31
2	20	51	54	39	11	33	51	17	47	46	58	35	30	4	18	50	57	31	26	31	14	11	44	5	48	6
2	21	9	9	6	88	15	69	20	43	69	89	1	2	6	1	1	2	3	9	1	2	13	2	1	1	2
2	22	14	50	0	52	13	20	19	21	50	49	19	0	13	0	0	0	0	0	0	0	0	0	0	0	0
2	23	92	99	97	100	72	61	0	90	87	69	93	100	100	47	69	93	25	65	0	0	39	61	6	0	27
2	24	91	95	88	67	69	39	80	40	58	78	57	31	77	31	44	68	55	40	24	20	30	16	19	9	26
2	25	1	20	24	1	1	6	57	58	87	1	17	9	1	2	6	1	33	2	1	1	2	12	1	1	2
2	26	31	36	35	56	73	51	44	57	62	58	43	55	31	50	54	65	54	61	33	39	66	35	28	30	41
2	27	77	56	54	63	48	54	51	15	44	72	46	50	50	49	55	63	54	50	55	36	50	54	15	41	36
2	28	96	88	83	98	98	16	98	71	83	96	4	5	8	46	31	6	3	6	3	4	3	4	5	5	6
2	29	96	24	31	74	87	94	19	41	93	98	9	12	94	83	9	67	88	88	1	2	39	50	2	1	5
2	30	85	94	91	89	94	41	91	56	91	72	55	88	20	11	9	55	35	38	0	6	57	0	0	0	24
2	31	6	13	20	68	30	50	24	28	38	49	59	35	76	23	19	74	65	43	25	8	56	91	30	17	26
3	1	39	60	61	58	50	61	47	50	44	25	28	31	27	52	30	11	39	13	44	52	11	8	13	9	9
3	2	80	80	9	101	88	35	77	69	43	88	86	6	64	47	35	47	87	93	11	19	24	89	9	2	15
3	3	56	67	58	91	100	52	64	62	68	60	72	72	55	20	57	65	69	72	24	19	65	50	54	50	24
3	4	39	83	69	87	96	39	33	41	6	29	36	63	9	8	66	87	51	30	3	1	90	44	56	2	28
3	5	69	67	23	53	54	102	80	76	70	79	48	102	84	61	69	91	54	63	42	38	11	10	50	60	4

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C*	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
3	6	61	91	58	61	98	44	33	55	24	54	38	90	80	47	71	39	2	55	17	9	16	6	17	34	2
3	7	49	58	61	81	72	61	46	71	87	17	17	43	54	43	20	71	38	67	13	8	15	28	70	9	9
3	8	58	49	54	79	79	72	67	65	73	47	57	61	35	65	63	58	48	38	46	39	39	42	35	35	33
3	9	50	80	44	74	80	74	27	50	76	50	35	46	54	72	66	61	24	11	4	9	5	5	30	19	10
3	10	80	69	40	50	15	94	42	83	17	38	77	48	17	25	50	80	52	80	13	14	80	79	33	24	5
3	11	52	36	16	30	41	67	41	41	82	43	56	39	47	39	35	49	36	41	25	45	30	10	9	13	6
3	12	94	55	58	79	65	41	80	47	71	63	34	55	32	11	42	34	65	59	5	5	29	43	33	2	8
3	13	77	51	89	91	84	48	72	46	66	71	50	50	47	46	17	34	56	69	8	42	45	63	58	18	19
3	14	35	13	65	32	28	27	8	5	13	4	31	23	43	2	3	5	24	32	21	6	19	17	8	36	4
3	15	78	75	53	54	70	55	43	63	76	78	59	54	39	46	60	57	52	48	45	61	62	61	49	44	58
3	16	52	27	41	46	60	35	50	64	65	66	50	67	80	17	39	47	55	57	47	13	17	12	22	14	14
3	17	52	47	72	39	57	64	51	74	33	39	49	61	46	47	47	56	30	40	84	35	33	30	30	24	24
3	18	41	80	25	28	49	44	31	41	42	33	29	40	39	63	7	46	54	9	3	21	9	13	20	9	2
3	19	60	99	72	58	94	86	98	99	98	72	85	96	94	5	60	46	16	20	12	58	6	28	9	12	3
3	20	87	41	17	79	100	62	93	76	102	100	88	95	93	100	101	61	71	33	49	22	17	7	5	47	6
3	21	35	53	47	86	92	27	45	51	83	29	37	43	80	65	45	36	34	86	30	25	16	67	46	56	35
3	22	55	50	41	63	25	48	63	57	53	43	59	46	72	31	43	34	35	43	38	22	30	49	22	20	31
3	23	89	101	94	101	98	94	61	99	69	76	6	8	20	90	80	5	51	98	49	4	76	61	101	88	17
3	24	68	63	25	91	91	61	54	49	96	11	46	65	74	68	16	50	58	40	58	14	57	47	22	19	63
3	25	14	3	3	99	98	0	6	14	96	64	6	0	0	0	16	0	0	0	0	0	0	0	0	0	0
3	26	82	50	27	90	90	65	43	48	54	24	50	75	49	31	65	63	19	24	41	43	44	68	66	63	20
3	27	24	60	26	60	47	46	47	48	60	45	22	36	25	60	47	20	3	43	39	0	0	2	0	17	14
3	28	98	94	85	98	98	69	55	76	87	55	69	65	56	49	82	43	47	79	54	16	49	46	46	43	22
3	29	61	38	93	59	54	65	87	61	69	27	81	90	79	28	43	88	52	61	57	44	82	54	49	41	39
3	30	6	27	35	22	19	5	20	50	22	58	25	41	22	17	14	41	63	35	3	0	71	54	9	6	2
3	31	55	63	71	62	63	28	74	8	72	59	43	50	54	18	57	43	82	74	41	7	17	71	69	11	79
3	32	87	99	9	2	51	93	75	98	76	46	35	85	85	2	3	28	3	89	41	2	2	5	2	2	3
3	33	13	33	2	11	39	101	79	101	55	2	76	76	1	33	0	10	16	24	25	0	0	2	0	0	2
3	34	63	58	74	82	55	36	51	55	57	58	42	50	76	16	80	58	33	72	22	0	3	2	2	2	5
3	35	3	0	8	3	13	6	8	21	65	2	5	13	3	2	0	0	0	5	3	0	0	0	0	0	0
3	36	20	69	55	91	64	14	66	76	74	98	74	80	80	3	44	53	63	90	52	3	79	6	3	7	25
3	37	90	65	83	69	77	43	72	61	65	16	0	0	0	0	65	0	0	0	0	0	0	0	0	0	0
3	38	42	66	55	54	38	60	51	14	20	37	17	31	16	22	2	9	14	6	17	18	3	36	9	10	33

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
3	39	61	91	74	96	85	88	61	96	51	31	33	38	31	3	54	48	13	17	5	11	1	20	13	2	25
3	40	71	34	2	80	64	19	51	28	50	65	52	79	80	47	24	67	30	3	6	50	17	2	0	0	6
3	41	63	49	67	31	31	72	87	74	68	63	65	76	65	30	25	43	50	57	47	20	30	63	9	3	20
3	42	51	52	55	71	75	55	38	71	77	68	54	72	46	71	71	36	47	46	33	24	20	50	31	47	28
3	43	71	98	65	38	74	87	76	68	68	47	24	20	39	38	47	75	66	60	41	20	31	53	62	30	35
3	44	39	52	96	72	65	17	86	25	99	90	44	6	55	74	77	8	18	20	8	3	0	55	0	0	12
3	45	20	16	8	2	12	16	9	7	0	4	2	9	8	5	6	0	0	0	0	0	0	0	0	0	0
4	1	77	55	61	57	77	68	46	75	63	49	17	42	41	9	32	5	8	6	5	7	6	5	6	6	6
4	2	94	46	50	87	93	20	3	35	13	28	34	21	25	1	12	2	2	1	2	1	1	2	2	2	2
4	3	60	102	11	91	102	9	3	20	0	102	55	0	0	72	102	0	0	0	0	6	0	0	0	0	0
4	4	88	45	52	85	84	55	54	65	55	61	46	44	20	51	71	26	20	19	18	17	19	20	20	11	19
4	5	79	74	65	65	51	59	71	68	19	66	45	42	72	39	24	74	73	36	57	9	28	47	15	12	20
4	6	87	68	82	70	91	82	85	87	71	42	59	41	36	37	30	6	85	72	25	17	56	69	50	21	17
4	7	102	102	102	90	46	97	91	98	65	91	52	59	54	0	17	0	0	8	0	0	0	0	0	0	0
4	8	65	51	58	66	50	44	54	56	87	50	50	52	24	65	39	50	44	67	27	39	71	58	59	40	46
4	9	45	39	54	60	46	48	36	55	25	48	14	35	39	8	13	46	42	36	28	17	24	27	9	7	20
4	10	77	70	80	78	92	24	33	50	24	72	77	10	61	24	39	58	74	38	45	21	46	61	6	60	18
4	11	55	102	102	74	72	96	84	61	85	95	0	39	69	17	1	0	0	0	0	0	0	0	2	0	0
4	12	94	102	102	85	90	1	83	75	53	0	76	0	102	0	0	52	0	4	6	0	3	87	5	0	0
4	13	20	64	51	45	83	73	23	50	88	78	86	48	0	0	61	0	2	0	9	2	0	0	0	0	0
4	14	72	89	69	72	24	30	35	66	52	39	44	43	57	41	22	9	10	38	8	8	5	2	6	2	8
4	15	53	51	50	51	61	49	52	54	39	55	46	42	42	38	43	57	46	14	20	20	17	30	17	20	9
4	16	27	37	30	17	26	28	46	28	31	25	27	75	61	14	17	17	17	51	17	9	6	9	5	4	5
4	17	36	87	98	93	88	47	5	64	52	33	42	50	29	47	96	52	27	39	2	14	3	4	2	3	2
4	18	51	40	6	83	61	35	52	14	16	54	48	57	9	6	46	21	61	46	22	21	25	77	4	---	12
4	19	42	44	72	94	67	71	61	83	101	100	96	98	27	6	5	90	93	91	15	5	101	54	63	10	2
4	20	43	58	43	42	41	45	57	66	76	66	63	50	61	32	20	28	41	65	32	25	35	19	45	34	14
4	21	87	87	85	91	91	80	76	88	80	90	74	80	65	57	72	60	77	82	56	44	45	50	41	47	44
4	22	32	25	21	28	39	34	15	20	39	38	27	19	11	13	24	25	36	49	22	13	32	17	16	6	11
4	23	77	6	2	4	3	37	3	28	35	52	3	10	3	2	3	23	2	3	2	3	5	28	6	16	3
4	24	61	36	44	43	79	44	83	54	13	63	20	6	53	8	30	50	39	28	20	5	16	46	25	12	9
4	25	11	7	6	8	5	9	4	6	14	9	76	11	49	14	5	39	60	47	16	11	21	14	9	6	10
4	26	61	54	52	13	33	17	6	14	17	19	6	35	50	9	25	65	33	53	4	13	49	62	5	4	31

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	27	67	68	69	61	87	84	61	69	73	79	57	68	64	33	40	67	76	72	51	35	72	63	6	28	18
4	28	47	41	38	32	50	29	28	38	37	47	5	5	28	14	17	5	4	9	2	3	6	2	3	5	3
4	29	43	27	34	12	49	25	9	39	10	31	6	11	17	3	6	3	5	2	6	3	2	3	4	2	2
4	30	33	35	27	28	32	19	14	26	22	35	5	13	8	12	2	2	5	8	2	6	3	2	2	2	2
4	31	31	39	39	35	39	51	35	41	57	44	47	35	35	31	13	4	60	17	5	5	19	6	7	6	5
4	32	61	35	37	39	30	42	68	60	48	41	17	50	56	3	2	20	17	11	2	3	2	2	3	2	3
4	33	27	29	27	54	27	69	40	61	58	65	44	34	30	8	34	13	14	11	17	9	6	10	6	6	6
4	34	15	7	3	27	26	2	8	3	13	3	4	2	2	4	2	2	2	4	2	2	2	2	2	0	3
4	35	59	92	24	41	2	31	17	72	90	78	25	18	77	19	61	2	17	4	2	2	20	1	1	1	2
4	36	76	85	76	94	98	76	50	93	100	102	11	20	30	13	13	34	4	9	13	3	11	25	2	29	13
4	37	44	51	66	23	52	38	64	39	65	76	63	61	48	50	64	43	53	72	35	20	22	17	15	9	17
4	38	85	81	61	86	95	59	29	51	63	63	53	69	72	67	62	68	28	87	50	20	89	4	5	8	6
4	39	20	20	23	23	29	17	32	29	31	22	17	16	36	22	14	14	14	16	18	20	16	12	8	16	4
4	40	58	33	38	42	72	30	14	42	71	75	35	42	25	55	42	26	31	28	13	8	15	25	5	11	9
4	41	72	75	64	39	50	83	80	71	78	61	61	70	72	47	79	70	43	61	52	13	35	56	5	19	26
4	42	65	61	62	61	60	57	57	70	46	57	65	59	57	47	51	49	60	36	52	39	31	54	42	48	31
4	43	83	86	84	88	91	67	78	52	48	73	27	28	58	1	48	11	66	32	13	0	33	5	1	0	5
4	44	74	86	84	71	60	94	69	76	63	85	72	83	75	76	42	35	37	31	16	6	9	8	4	3	6
4	45	9	66	77	101	81	94	22	60	82	98	75	99	63	2	58	62	80	94	2	2	73	2	2	2	2
4	46	60	46	50	70	61	39	46	35	55	42	56	61	29	38	20	37	61	58	13	36	37	19	32	6	34
4	47	48	6	51	49	18	58	5	52	48	43	3	5	6	2	2	3	3	5	2	2	4	5	2	3	6
4	48	17	28	21	41	61	17	39	29	39	52	33	33	34	49	78	9	11	33	3	2	5	13	3	2	6
4	49	37	27	35	36	69	83	72	91	45	67	28	56	63	55	80	49	50	36	24	8	11	63	5	2	5
4	50	46	20	69	44	63	9	6	27	71	41	0	9	5	1	31	7	2	12	2	7	11	2	1	2	9
4	51	64	49	88	17	61	94	20	50	14	4	5	26	20	3	4	72	85	61	2	2	9	2	2	2	1
4	52	56	21	61	13	52	33	46	17	50	34	24	77	17	49	24	13	18	9	15	20	13	17	17	15	13
4	53	71	54	65	63	45	75	74	71	72	72	70	59	68	74	68	61	72	63	57	43	55	49	54	52	18
4	54	41	83	46	39	70	64	80	68	48	93	54	31	33	25	56	30	27	6	35	10	2	9	11	3	2
4	55	58	33	47	93	80	39	65	54	31	91	68	53	87	82	22	73	33	85	26	76	24	46	30	5	13
4	56	49	50	69	85	94	76	57	57	82	77	50	51	48	63	29	62	65	49	38	33	50	38	36	13	23
4	57	43	37	69	54	76	28	62	61	55	82	24	50	25	22	14	56	68	86	45	12	79	33	10	8	50
4	58	65	80	65	69	71	85	50	68	46	57	89	41	82	2	41	2	2	2	2	2	31	2	2	2	3
4	59	2	34	1	8	2	0	44	0	0	0	2	0	33	0	2	2	0	0	2	0	0	2	2	0	0

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	60	6	9	14	6	6	14	14	12	24	51	4	6	11	17	2	45	30	8	17	3	2	53	17	6	3
4	61	54	61	46	38	68	49	35	46	34	72	25	32	24	6	10	24	37	33	15	2	31	24	2	1	2
4	62	98	69	91	96	57	72	97	31	58	65	79	59	88	53	42	49	54	54	27	22	24	65	6	43	17
4	63	98	88	85	89	88	50	61	39	66	55	43	37	31	45	35	40	36	77	35	43	51	30	36	25	58
4	64	82	71	31	97	98	88	4	21	25	99	52	39	54	33	85	27	67	5	46	4	5	17	11	4	1
4	65	69	49	65	50	67	36	35	44	46	64	44	39	57	43	29	49	39	51	30	28	39	37	23	23	32
4	66	74	57	43	35	63	65	61	53	26	36	43	52	54	26	20	39	22	38	13	20	27	46	13	9	10
4	67	39	57	53	71	72	45	36	42	38	65	39	55	54	17	33	34	44	32	28	21	7	16	3	31	4
4	68	28	19	27	4	29	9	37	46	53	27	19	22	2	11	3	2	5	1	2	3	2	3	2	2	1
4	69	54	62	67	66	76	86	52	67	72	79	61	44	57	48	85	35	27	18	19	2	2	6	8	4	2
4	70	80	76	73	93	68	61	65	83	87	87	84	52	94	16	6	92	42	64	6	4	46	17	17	10	8
4	71	2	2	14	1	66	4	2	5	25	30	8	2	2	1	14	2	1	1	5	1	2	2	1	2	8
4	72	55	29	9	17	4	95	91	96	85	84	65	80	95	47	64	53	73	57	28	19	20	25	17	8	16
4	73	8	35	16	16	31	9	6	9	11	4	4	4	35	5	4	20	13	39	5	3	7	3	5	2	7
4	74	39	47	44	71	69	47	46	54	47	70	56	74	46	43	44	52	74	67	30	35	43	45	57	32	18
4	75	89	91	102	102	102	100	72	85	66	102	16	46	55	34	25	17	5	20	18	0	0	12	6	0	0
4	76	51	60	62	81	74	38	54	69	30	62	78	20	33	28	70	31	68	43	20	16	42	20	16	6	11
4	77	13	2	9	29	49	16	24	8	6	52	7	43	2	5	32	3	6	4	3	3	18	24	2	0	8
4	78	83	65	63	77	79	43	61	46	52	67	19	22	35	35	75	14	9	11	14	2	13	9	3	12	12
4	79	76	72	70	91	90	51	65	52	84	85	36	54	39	3	72	91	60	8	9	4	3	76	47	7	2
4	80	36	64	58	59	68	31	31	57	46	47	7	39	11	38	34	8	3	2	21	2	2	9	2	33	2
4	81	8	9	2	35	9	28	20	53	47	46	39	49	13	66	9	22	43	71	8	3	8	6	2	5	1
4	82	55	65	44	88	91	19	72	3	35	2	2	28	2	19	1	2	6	1	2	2	2	1	1	2	3
4	83	69	75	70	54	102	74	65	57	35	72	73	59	98	31	44	80	51	68	91	9	73	71	75	10	12
4	84	85	89	73	74	80	67	61	74	28	33	10	22	11	2	13	13	11	---	11	0	6	11	5	0	4
4	85	67	49	50	31	52	33	35	57	46	61	28	14	28	35	51	8	1	1	3	1	2	7	6	14	2
4	86	78	71	80	68	84	74	58	69	42	70	57	77	43	8	55	42	19	38	57	20	43	48	28	17	31
4	87	9	10	20	4	5	34	20	41	52	20	24	51	28	18	13	54	24	28	20	19	9	28	13	5	3
4	88	69	65	27	13	27	54	41	64	20	23	43	17	41	26	19	11	24	30	5	11	22	5	6	5	9
4	89	82	87	85	47	49	98	83	98	80	39	39	52	11	54	2	2	20	3	1	2	2	5	2	1	2
4	90	53	59	25	93	65	57	8	88	63	63	23	8	1	2	52	2	2	1	1	1	1	1	1	2	1
4	91	60	39	59	71	69	10	2	20	35	49	39	13	35	11	5	86	36	70	3	3	83	76	35	1	15
4	92	31	55	42	67	43	46	75	62	46	---	4	46	3	11	13	3	57	49	3	5	4	3	3	3	3

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
4	93	87	82	76	69	87	84	42	83	79	74	18	39	40	49	27	57	71	---	43	19	33	46	36	24	14
4	94	51	37	49	54	55	50	64	44	58	58	52	24	57	39	24	74	74	63	37	35	63	57	17	46	20
4	95	76	23	80	83	4	33	43	77	90	26	2	31	68	10	28	31	89	38	11	2	54	6	2	5	4
4	96	73	17	44	20	80	61	13	46	20	38	71	20	14	17	14	13	16	20	15	35	22	11	17	13	24
4	97	38	60	66	41	46	44	48	45	43	47	31	40	43	13	19	36	40	25	22	2	33	23	5	18	5
4	98	92	28	24	8	35	86	91	86	80	---	79	80	88	69	61	94	97	65	16	14	34	9	28	3	43
4	99	80	63	60	57	69	68	31	69	68	68	67	78	17	22	66	66	79	69	32	16	49	39	50	14	19
4	100	33	59	16	2	24	19	5	4	39	35	16	14	6	2	48	4	9	5	2	2	13	8	9	2	0
4	101	35	35	24	49	64	61	73	77	64	84	56	56	41	44	25	65	59	64	18	27	28	31	35	6	8
4	102	89	90	64	77	85	29	14	43	38	77	48	5	14	8	32	3	3	4	3	3	4	3	2	3	3
5	1	3	46	31	---	---	57	55	46	83	---	---	76	87	50	---	46	98	88	20	51	43	30	---	---	20
5	2	33	47	28	44	47	43	17	41	22	24	30	19	28	16	36	35	36	41	17	19	17	24	54	17	8
5	3	24	19	8	6	22	20	8	25	17	6	19	16	6	14	24	27	24	13	20	11	20	3	3	16	11
5	4	50	56	46	55	61	48	47	52	55	67	51	43	44	52	59	22	28	12	14	5	10	31	30	22	21
5	5	68	74	72	55	66	76	70	50	63	17	68	55	66	16	8	63	72	56	38	30	50	18	5	6	3
5	6	3	2	47	1	83	2	3	2	50	3	2	5	2	19	3	19	2	6	3	2	69	93	59	9	3
5	7	41	38	25	56	46	34	33	46	38	43	29	35	35	42	49	35	35	27	20	33	24	36	39	39	35
5	8	48	82	67	66	50	34	49	65	46	46	46	43	79	43	8	47	49	58	66	20	17	71	3	33	44
5	9	8	31	3	8	2	28	16	39	27	14	83	76	5	6	0	10	0	0	0	3	0	0	0	0	0
5	10	34	43	19	40	44	33	5	54	51	35	13	24	6	9	62	69	24	28	13	3	30	58	39	3	6
5	11	71	8	43	9	63	6	39	58	55	24	68	63	23	6	44	22	16	20	5	2	44	3	3	2	3
5	12	52	46	57	66	63	63	65	55	90	54	4	71	2	54	52	2	2	3	3	2	2	3	2	2	3
5	13	58	50	47	57	61	57	57	79	79	81	46	67	45	49	88	58	58	74	41	41	64	61	58	31	55
5	14	55	59	65	71	63	60	63	66	46	41	38	36	38	43	48	2	23	9	2	13	2	17	2	2	3
5	15	11	27	17	28	21	23	17	11	20	15	6	11	2	1	2	11	19	5	5	1	3	3	1	1	1
5	16	98	87	83	87	88	55	85	83	83	74	76	58	68	54	49	25	94	50	55	50	31	68	56	42	60
5	17	44	31	39	20	47	31	28	43	20	44	35	28	42	43	44	19	16	24	11	6	81	2	2	4	13
5	18	67	9	24	2	3	2	36	8	54	9	63	83	61	93	69	34	2	2	2	21	44	1	3	1	2
5	19	93	18	94	87	90	30	68	72	49	52	52	39	72	25	60	24	20	27	22	25	63	6	60	33	5
5	20	63	76	65	23	58	57	65	77	87	65	82	99	81	55	20	10	11	24	43	88	5	1	5	69	1
5	21	36	16	58	9	41	60	69	88	71	25	94	91	82	27	82	52	33	71	35	14	59	39	37	20	16
5	22	41	57	61	3	24	52	49	48	30	39	57	49	69	28	2	55	22	16	19	2	5	5	10	1	0
5	23	39	81	93	72	94	43	33	55	98	61	54	57	9	13	31	32	35	33	33	11	24	82	27	2	19

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
5	24	72	28	91	0	3	23	9	0	0	0	0	18	0	8	0	2	65	0	0	1	1	0	0	0	0
5	25	79	91	71	74	5	63	77	4	85	51	44	61	46	1	3	8	47	24	8	6	8	6	47	1	6
5	26	22	35	5	1	0	42	38	50	33	3	14	29	2	24	0	16	0	0	0	1	3	0	0	2	0
5	27	13	22	28	19	23	13	1	2	1	0	87	14	1	5	0	27	5	94	9	0	28	17	8	1	52
5	28	20	30	31	9	30	28	25	15	33	31	16	35	17	24	11	25	46	44	9	3	8	24	3	2	16
5	29	44	43	58	61	75	16	35	17	88	79	35	19	33	12	52	57	82	85	10	2	28	20	46	2	13
5	30	91	57	54	74	87	42	24	30	25	87	36	30	49	49	50	87	43	41	20	50	57	8	43	39	25
5	31	20	2	52	91	90	80	60	70	6	13	5	17	57	8	25	25	19	80	52	46	65	5	9	51	24
5	32	60	85	46	81	50	61	47	44	31	31	66	71	72	27	65	66	31	38	22	20	27	24	5	18	16
5	33	79	59	35	96	96	24	36	11	77	65	60	16	21	39	91	28	38	25	20	2	13	71	33	8	28
5	34	33	49	54	28	6	47	25	17	0	8	74	74	6	2	5	6	4	8	3	2	1	5	2	2	3
5	35	98	96	96	98	98	43	36	44	27	74	33	20	61	2	16	16	2	16	24	6	2	43	0	0	2
5	36	83	55	61	47	65	55	49	93	49	79	68	63	44	28	46	68	8	53	33	27	43	38	47	28	30
5	37	93	82	46	88	77	83	93	68	91	96	69	76	64	47	72	66	93	77	42	30	54	33	41	30	13
5	38	66	46	52	46	54	20	24	25	30	39	39	43	67	2	20	2	0	0	2	1	2	2	1	2	0
5	39	36	51	60	65	60	24	28	35	49	28	28	39	22	2	2	29	30	33	13	2	15	37	19	5	8
5	40	9	5	28	27	27	2	13	9	24	19	8	3	2	2	9	43	17	11	8	5	30	19	14	3	6
5	41	38	41	33	90	96	31	28	24	58	22	22	38	36	2	0	3	29	57	9	0	24	74	61	20	13
5	42	3	28	19	28	9	87	76	91	47	31	41	74	69	54	69	35	43	47	11	0	10	3	0	2	5
5	43	43	50	41	19	54	43	41	31	72	58	35	39	39	43	17	39	33	52	11	14	17	39	19	17	17
5	44	63	55	52	50	58	71	66	67	63	63	49	50	57	17	54	57	47	55	39	13	46	56	43	41	60
5	45	91	39	35	36	74	17	2	27	83	27	55	66	74	5	90	76	60	55	43	59	72	24	12	47	16
5	46	66	30	19	46	43	35	55	20	65	39	40	39	31	39	49	0	0	0	0	0	0	0	0	0	0
5	47	43	57	44	27	38	57	63	76	58	36	60	76	50	22	63	42	47	49	41	28	27	47	27	20	13
5	48	17	47	36	74	66	31	16	13	60	24	14	20	9	0	17	0	0	0	0	0	0	0	0	0	0
5	49	35	0	47	47	46	98	3	47	33	2	32	51	0	0	27	0	0	2	0	0	0	0	0	0	0
5	50	60	59	90	66	68	47	63	57	58	28	47	43	36	2	28	16	49	52	35	13	8	41	31	27	31
5	51	79	65	96	54	88	91	55	43	49	77	16	20	37	28	31	0	12	13	11	0	2	6	2	9	3
5	52	44	9	45	31	35	2	33	54	83	55	41	28	10	0	44	22	47	6	2	0	11	0	0	0	0
5	53	43	39	51	50	35	25	49	64	33	3	17	22	34	21	8	10	2	3	2	16	1	3	0	0	0
5	54	75	52	65	58	72	52	55	67	63	52	50	50	51	27	0	51	49	41	16	6	50	39	19	0	24
5	55	79	81	25	79	80	46	30	47	67	72	50	53	31	31	10	94	91	51	57	14	94	50	47	30	50
5	56	60	65	55	47	52	50	51	57	49	52	49	49	60	50	43	47	49	50	55	46	44	73	63	46	50

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
5	57	65	12	49	19	72	27	44	46	18	84	13	38	47	9	15	46	73	9	14	6	18	20	12	26	3
5	58	28	27	54	79	72	24	25	25	76	52	50	35	50	13	2	7	39	12	22	5	6	20	13	1	9
5	59	35	18	9	3	33	35	40	44	10	31	17	24	35	3	2	36	0	0	0	0	19	0	0	0	0
5	60	22	57	39	38	28	31	33	60	25	28	41	43	33	5	21	19	44	17	5	17	3	4	35	28	8
5	61	44	43	36	66	44	52	60	46	69	58	58	50	57	39	63	67	61	53	63	19	55	43	35	30	27
5	62	50	39	66	80	77	63	44	50	39	35	28	60	35	20	28	3	16	24	2	2	5	22	0	2	2
5	63	98	83	98	76	80	90	76	96	87	0	2	24	0	4	0	5	3	2	0	4	0	0	0	0	---
5	64	9	8	22	8	8	13	8	6	4	9	2	2	5	8	13	20	20	9	0	5	14	0	8	2	0
5	65	36	38	38	65	54	48	49	44	52	24	57	57	31	29	5	50	36	38	27	7	37	24	16	17	17
5	66	101	101	101	101	101	101	80	101	91	72	44	31	20	16	52	6	31	27	9	5	0	12	11	0	8
5	67	55	33	45	35	61	47	35	58	50	25	35	41	54	17	22	24	37	6	16	35	13	4	1	1	1
5	68	19	40	36	79	20	5	27	20	49	5	98	79	83	1	31	50	33	75	5	2	2	8	14	2	19
6	1	35	25	2	17	79	3	0	21	13	19	7	8	17	3	50	28	8	1	2	1	1	8	1	2	1
6	2	50	28	17	30	51	34	20	50	61	57	30	38	12	24	25	20	6	13	11	7	51	22	35	26	24
6	3	47	50	20	74	3	39	5	5	48	47	39	3	15	3	16	2	2	2	2	2	2	6	6	3	3
6	4	61	93	65	83	49	50	66	65	20	80	7	9	17	5	3	5	9	19	5	5	72	3	6	3	28
6	5	40	28	25	10	67	24	23	25	27	54	17	6	14	11	13	13	8	5	6	7	8	6	10	7	8
6	6	63	13	2	2	6	8	2	2	35	6	2	2	2	2	16	10	2	2	3	2	2	2	2	17	1
6	7	66	32	50	98	95	37	61	50	10	75	0	0	0	0	91	0	0	0	0	---	0	0	0	0	0
6	8	56	83	75	69	87	61	59	80	65	74	43	54	47	68	22	53	58	35	39	35	56	26	14	19	30
6	9	87	95	77	61	70	94	85	77	76	65	73	90	24	83	9	50	66	31	31	2	16	13	2	29	22
6	10	76	84	46	20	82	52	80	44	38	42	91	62	18	52	35	72	59	25	25	68	21	27	19	6	14
6	11	35	91	54	46	25	78	73	98	57	57	83	74	80	44	59	35	46	53	14	20	13	20	5	5	5
6	12	72	82	66	74	78	76	58	28	25	32	77	60	18	5	21	33	46	41	9	34	28	2	26	3	5
6	13	16	26	27	43	69	28	8	39	34	63	9	15	13	34	6	20	16	13	9	8	27	9	10	8	22
6	14	65	71	69	72	46	60	46	54	55	50	79	50	62	41	65	37	59	50	40	22	19	20	28	54	8
6	15	50	44	53	67	80	57	41	62	81	69	20	53	38	8	28	52	21	29	21	6	28	17	9	5	9
6	16	68	69	17	55	49	69	63	85	16	33	20	35	49	22	49	13	9	9	8	10	5	69	6	8	5
6	17	69	75	59	65	46	81	87	82	66	52	71	58	69	35	22	30	66	85	17	38	36	39	24	35	38
6	18	59	44	63	77	43	65	58	58	68	40	46	63	67	45	19	77	68	63	57	28	50	32	3	57	5
6	19	66	57	58	87	93	72	61	70	12	94	75	74	86	43	24	85	76	72	25	40	50	76	63	25	17
6	20	31	84	48	27	24	60	76	87	39	20	19	33	75	16	6	67	93	74	15	19	39	26	17	27	21
6	21	75	74	54	60	5	63	62	71	90	70	57	77	63	11	42	5	76	36	9	6	33	3	6	2	37

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
6	22	55	33	55	78	93	50	85	50	57	44	31	46	63	23	20	80	60	32	19	16	51	3	22	4	27
6	23	13	8	4	6	6	6	5	9	6	8	31	6	14	6	8	54	50	36	57	50	71	45	59	55	51
6	24	75	94	84	94	63	88	69	63	65	87	20	51	28	33	55	14	54	36	5	9	5	2	0	0	16
6	25	34	14	19	38	2	54	28	61	43	27	61	2	82	28	1	1	1	2	1	2	2	2	2	2	3
6	26	68	71	65	48	63	87	62	101	56	45	15	24	16	12	19	14	13	30	3	3	20	5	2	2	19
6	28	67	46	39	9	35	58	77	61	43	71	33	55	51	35	25	6	28	16	8	28	18	19	14	10	17
6	29	50	50	46	93	96	35	39	67	87	96	54	8	9	6	9	6	9	9	9	9	4	5	14	6	5
6	30	57	65	72	33	5	32	39	66	18	14	52	40	65	38	14	77	94	100	12	1	27	10	10	9	3
6	31	83	101	61	91	99	81	85	98	96	93	94	80	100	94	94	11	6	77	14	4	3	101	6	98	3
6	32	72	68	75	74	50	59	67	61	43	66	27	69	46	43	13	11	31	55	5	8	10	9	8	5	9
6	33	39	76	41	14	46	58	63	83	65	69	59	65	68	70	31	25	68	26	20	10	20	7	19	24	5
6	34	70	72	76	46	67	35	52	72	85	83	63	67	51	34	77	39	71	54	26	17	54	34	11	24	12
6	35	6	34	54	3	63	43	82	30	34	50	50	31	30	65	38	47	14	11	9	19	53	8	---	42	46
6	36	53	57	69	63	83	46	20	42	79	100	88	59	80	50	57	82	52	66	54	17	28	46	29	47	44
6	37	65	61	58	45	70	47	33	59	46	66	32	33	16	17	17	20	25	41	6	17	22	16	5	6	6
6	38	60	62	58	50	57	71	50	74	48	69	58	61	49	57	44	50	77	68	47	33	46	39	53	31	21
6	39	47	76	73	57	50	46	54	35	57	60	39	8	55	21	26	37	22	50	38	13	28	20	9	9	22
6	40	44	95	83	83	94	57	31	61	90	71	65	47	16	27	65	91	89	96	69	90	6	79	72	31	7
6	41	9	37	10	44	68	24	13	4	54	67	94	44	76	30	9	47	69	99	18	16	87	90	20	41	13
6	42	76	31	51	97	46	17	34	39	33	66	78	86	36	47	20	2	27	2	2	7	3	1	2	3	2
6	43	28	11	8	20	11	11	6	5	10	9	12	9	19	13	12	66	10	46	55	16	41	61	12	24	21
6	44	72	43	53	32	50	55	27	51	39	60	43	26	14	26	14	50	27	28	33	12	36	25	22	45	20
6	45	54	38	94	25	93	54	54	87	76	63	67	65	19	31	32	31	49	61	55	20	43	31	16	18	16
6	46	77	77	74	72	86	76	69	77	55	85	49	25	31	26	71	20	29	25	22	17	19	19	20	23	11
6	47	73	74	73	46	58	65	71	53	79	63	57	77	60	65	51	60	47	72	33	11	16	35	24	17	11
6	48	52	60	46	34	57	46	30	41	67	38	67	51	49	31	17	61	66	53	30	14	52	41	31	20	9
6	49	52	41	43	63	72	39	25	31	76	66	46	49	16	26	57	63	32	37	13	2	2	20	3	6	2
6	50	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	51	18	33	16	20	24	29	25	19	35	69	19	46	16	19	28	14	31	16	15	2	2	2	2	18	1
6	52	53	57	57	57	43	61	60	54	61	65	63	43	41	53	24	44	71	65	30	39	32	44	20	31	17
6	53	46	51	35	27	28	43	33	30	17	45	3	9	6	5	28	1	2	2	2	3	2	2	2	4	1
6	54	45	81	54	35	30	81	55	71	61	59	57	61	75	54	58	49	58	69	57	41	62	58	49	49	47
6	55	70	65	63	41	46	66	66	58	72	47	52	61	54	26	50	52	50	41	28	20	6	25	5	9	9

Table D-4. Continued

		Rated perceived attractiveness																								
		WHR of 0.5					WHR of 0.6					WHR of 0.7					WHR of 0.8					WHR of 0.9				
Ses#	Stu#	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
6	56	65	67	67	36	65	67	67	66	50	66	66	65	67	39	55	67	67	51	35	39	24	39	54	36	8
6	57	87	76	88	87	65	67	74	91	46	68	79	57	67	60	54	61	69	94	57	27	47	88	38	44	19
6	58	39	28	21	35	5	35	33	40	26	39	33	55	23	25	41	2	39	28	2	20	15	16	5	19	17
6	27	13	10	10	8	4	17	19	8	4	3	38	13	26	28	14	14	17	14	33	39	21	12	35	29	91

APPENDIX E

GUIDELINES OF PERCEPTION BASED MODELING AND ANIMATION VIDEO TAPE

This six-minute narrative video tape summarizes the method for controlling the perceived sex (male or female) and gender (masculine or feminine) of a human model in 3D computer animation, utilizing various waist-to-hip ratios (WHRs) and hip movement during the walk cycle.

VITA

Mitsutoshi Higa received his B.S. in Biochemistry from Texas A&M University in 1996. He received his M.S. degree from the Texas A&M University College of Architecture Visualization Sciences Program in December 1999.

His academic interests include researche in human brain function and in virtual reality interface. Outside interests include landscape photography, racquetball, camping and skin diving.

Mitutoshi Higa can be contacted at the following address:

Visualization Laboratory

Texas A&M University

216 Langford Center

College Station, Texas 77843-3137

Phone: (409) 845-3465